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DOLORS RIVER, COLORADO ---

THE RIVER OF SORROWS

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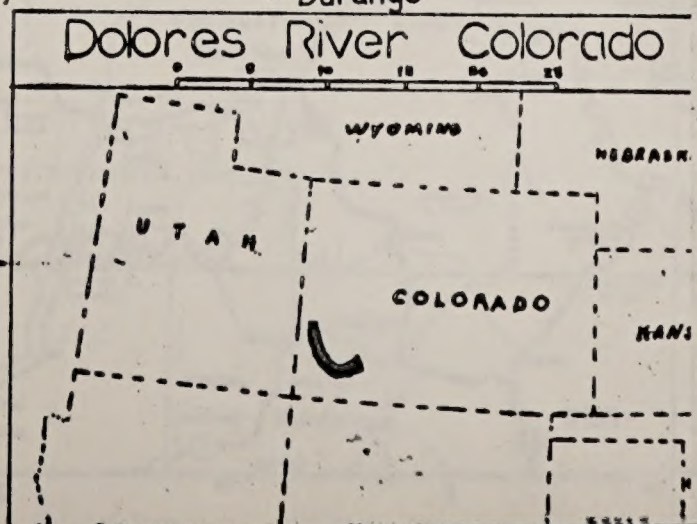
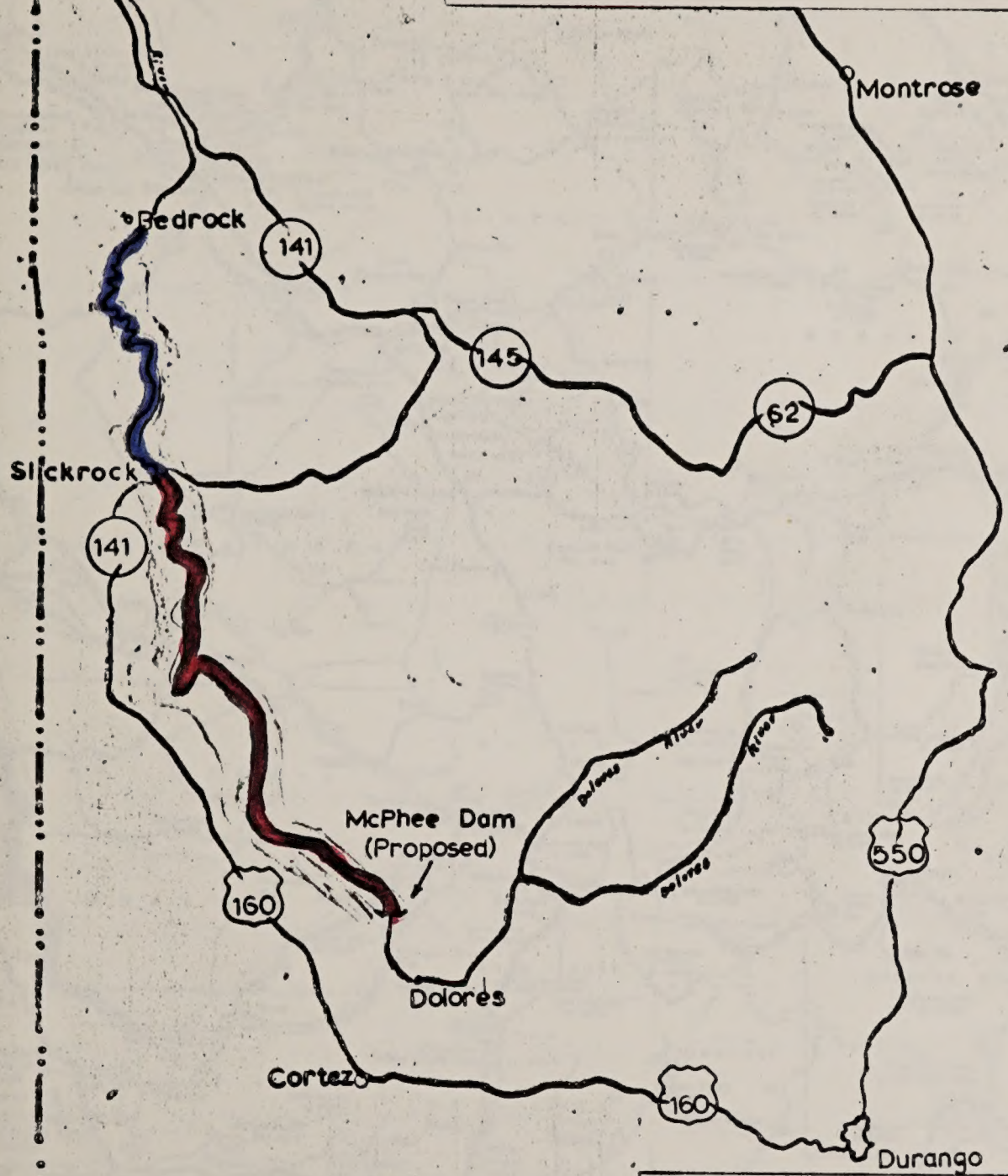
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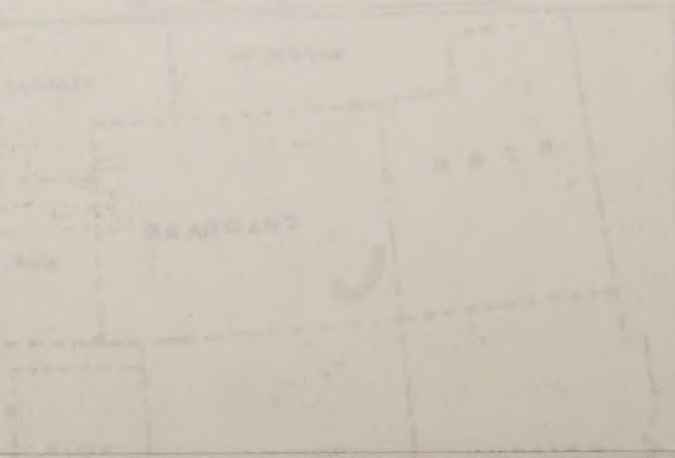
- BLUE** - Segment of river proposed for Wild River Area status.
- RED** - Segment of river proposed for Recreational River Area status.



Legend
1000' - 1500' of water depth for
the river and delta
1000' - 1500' of water depth for
the river and delta



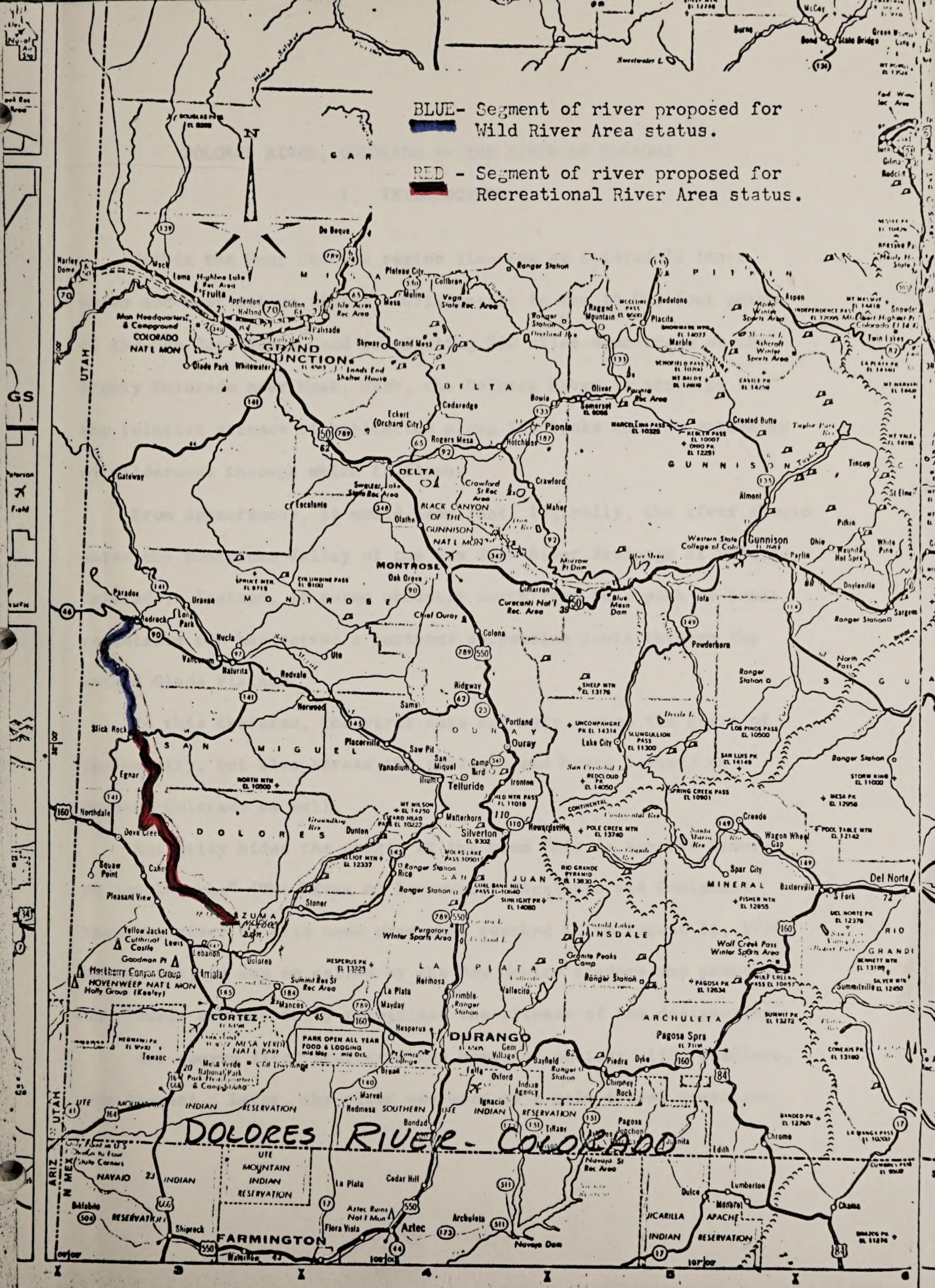
Colorado River Delta



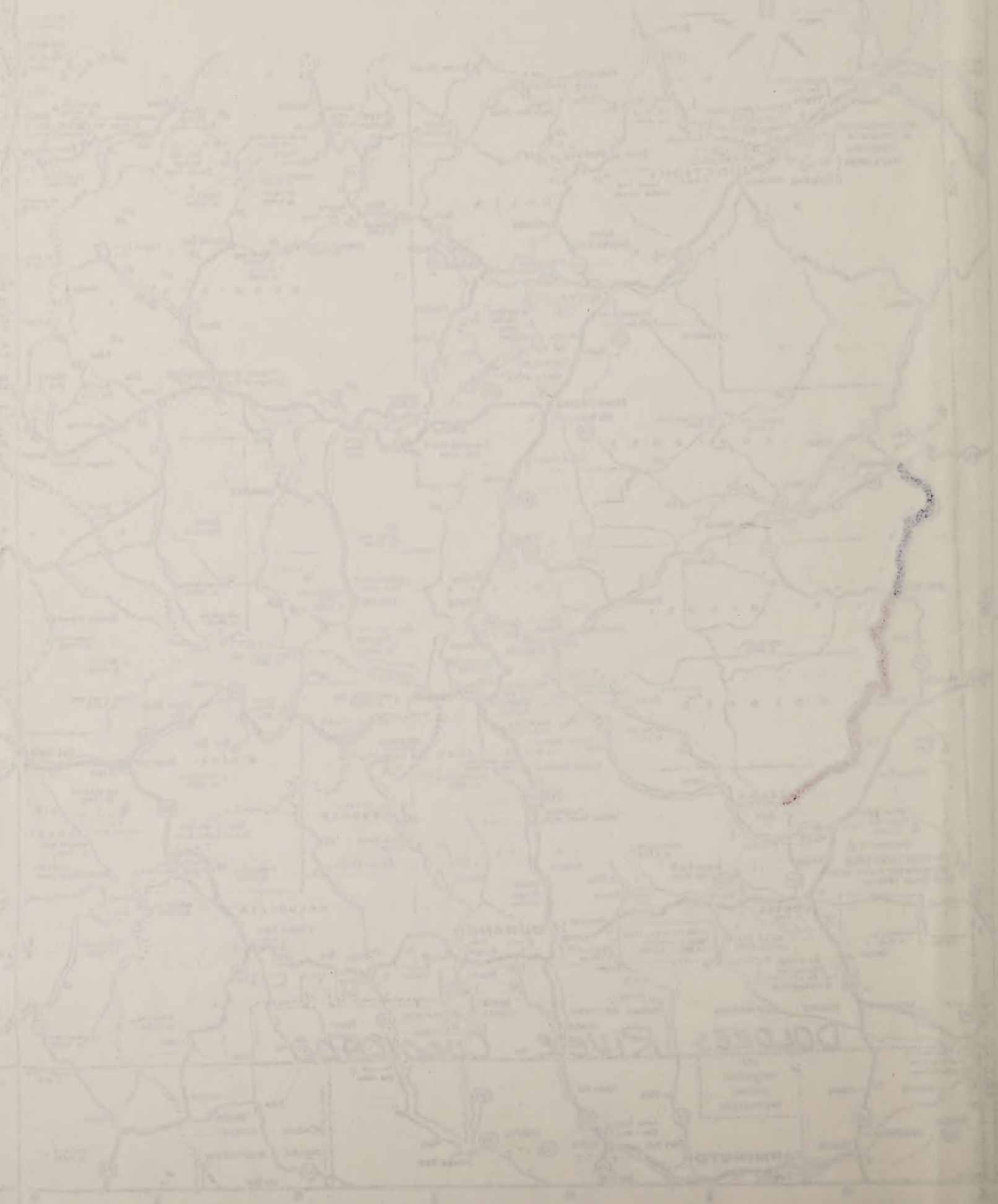
CO RIVER
NEW MEXICO

BLUE- Segment of river proposed for
Wild River Area status.

RED - Segment of river proposed for
Recreational River Area status.



Map of the State of Illinois
Showing the location of the
State of Illinois
in relation to the
State of Missouri
and the State of Kentucky



DOLORS RIVER, COLORADO -- THE RIVER OF SORROWS

I. INTRODUCTION

Within the Four Corners region lies one of Colorado's least known and most unique rivers. Originating in the 14,000-foot peaks of the San Juan Range, and culminating 250 miles downstream at the mighty Colorado near Moab, Utah, the Dolores River is striking for the relative absence of habitation along its banks and the extremity of wilderness through which it flows.

From appearances, it would seem that, logically, the river should enter the Montezuma Valley of the San Juan River drainage at Dolores, Colorado. Instead, it turns abruptly north from this path of least resistance and has carved a tortuous serpentine route through the raised Glade Plateau.

In this traverse, the river cuts not only across the grain of the country, but also across the geologic and human history of Western Colorado as well.

Antiquity hides the origin of the name "Rio de Nuestra Senora de las Dolores" (The River of Sorrows.) Escalante and Dominques knew the river by this name when they reached it on August 11, 1776. Apparently, it was so called by the New Mexico traders who preceded the Padres and who fully recognized the fitness of the designation.

Its canyon first sheltered the homes of ancient cliff dwellers, the Anasazi. Later, the river was used as a main travel route for

INTRODUCTION

Within the four corners region lies the Colorado River, a river of great importance. Originating in the 14,000-foot peaks of the San Juan Range, and extending 250 miles downstream to the Gulf of California near Yuma, the Colorado River is a vital link in the selective network of transportation along the banks and the valleys of the Colorado through which it flows.

From its source, it winds down that, originally, the river should have been a seasonal valley of the San Juan River drainage at Dolores, Colorado. Instead, it runs steadily north from its birth at least 100 miles and has carved a permanent network of canyons through the rugged Colorado Plateau.

In this respect, the river cuts not only across the path of the country, but also across the geographic and human history of the Colorado River valley.

Geography gives the origin of the name "the Colorado River" as the Colorado River of the West. (Encyclopedia and Dictionary of the Colorado River of the West.) They traveled it on August 11, 1872. It was so called by the New Mexican traders who preceded the Spaniards and who help recognized the Indians of the Southwest. The name first appeared in the names of ancient cliff dwellings. Later, the river was used as a main source of water for the Indians.

the Utes and Navajos. The earliest recorded visit to the Dolores was that of Don Juan Rivera in 1765.

In the 1870s and 1880s, the upper portions of the river served as a major travel route to the silver and gold mines of Rico, Dunton, Ophir, and Telluride. In 1889, the river canyon between Dolores and Lizard Head Pass became the route of the Rio Grande Southern Railroad. This railroad served the area until 1952--the last twenty years seeing the birth and death of the world famous "Galloping Goose" line. The mining activity has nearly subsided and the railroad has been removed, but the river valley is still the main means of access.

The influence of man can be noted along much of the upper stretch of river, as considerable acreage is privately owned. These scattered ranches and meadow lands complement the extraordinary natural scenic values.

The lower section of the river remains today very much as it was when Escalante visited it. The banks of the stream are grown with dense thickets of bush and trees through which even cattle, especially the Spanish longhorns, found going difficult. Moreover, for long distances, it runs through narrow gorges between high unscalable cliffs, some as deep as 1,000 feet. In many areas, the only way out is to go forward or turn back. It is these features that make the Dolores River a matter of affection and pride to people who live near its banks.

The first and best view of the valley is from the river.

The river is about 1000 feet wide at this point.

In the middle of the valley, the river flows in a straight line, as a major stream, to the river and gold fields at this point. In 1880, the river changed its course and flowed in a new direction. The river has been in its present course for about 100 years. The river and valley of the world famous "Gallatin River" are the most beautiful and fertile valleys in the world. The river valley is still the same as it was.

The valley is now a beautiful scene of nature. The river flows in a straight line, as a major stream, to the river and gold fields at this point. In 1880, the river changed its course and flowed in a new direction. The river has been in its present course for about 100 years. The river and valley of the world famous "Gallatin River" are the most beautiful and fertile valleys in the world. The river valley is still the same as it was.

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The Dolores River represents a significant segment of our natural heritage. The lower river section represents a rare natural resource, a desert river with stream banks remaining essentially as they were when first visited by man, while the upper stretch exemplifies a mountain stream in a scenic setting.

It is essential that proper consideration be given to the preservation of this rarity. The following discussion more fully describes the river and its special qualities and values.

II REGIONAL SETTING

The regional setting of the Dolores River has picture book appeal. To the south lie extensive wheat and bean fields where topography is reminiscent of our nation's midwest corn belt area. North from this area, conditions change rapidly from the floor of the southwest desert, comprising the Navajo Indian Nation, through the deep canyons and high plateaus of the pinon-juniper foothills to timbered slopes and lush alpine meadows. Finally, we reach the very spectacular precipitous peaks of the Rocky Mountains draped in permanent snow-fields.

The region's western margin is marked by the impressive Sierra de La Sal Range standing isolated astride the Utah-Colorado border. Guarding the northern flank is the Uncompahgre Plateau, while the La Plata Mountains form the eastern edge.

Diverse topographical features of the region create a wide range of climatic conditions. Precipitation during a normal year averages from 24 inches in the mountains to 9 inches in the lower valleys. Annual precipitation occurs in about equal amounts from summer thunderstorms and from winter snowfall. The growing season ranges from a short 45 days at Telluride near the river basin headwaters, to 153 days at Montrose in the nearby Uncompahgre Valley. Temperatures average through the 40s on an annual basis with average lows of 20s in January and average highs of 65-70 in July.

The regional economy has a firm base in agriculture, stock raising, and mineral development, as well as tourism.

During the summer months, the tourist population increases dramatically in the entire southwest portion of Colorado. People are drawn here by the classic Anasazi cliff dwellings of Mesa Verde National Park. The Ute and Navajo Indian Nations and the narrow gauge railroad between Durango and Silverton are outstanding attractions, as well as the breathtaking scenery of the San Juan Mountains. Numerous private recreational enterprises are also available to the public, such as dude ranches, packers and outfitters offering pack trips, jeep tours, and other outdoor activities. Public camping and picnic sites are available on federally managed lands.

The River of Sorrows flows through four southwestern Colorado counties--Dolores, Montezuma, San Miguel, and Montrose. This region

Historical topographical features of the region include a wide range
of climatic conditions. Precipitation during a normal year averages
from 24 inches in the mountains to 9 inches in the lower valleys.
Annual precipitation occurs in about equal amounts from summer thunder-
storms and from winter snowfalls. The growing season ranges from a
short 55 days at Telluride near the river basin headwaters, to 175
days at Montrose in the nearby San Juan Valley. Temperatures
average through the year on an annual basis with average lows of 10°
in January and average highs of 75-79 in July.
The regional economy has a long base in agriculture, stock
raising, and mineral development, as well as tourism.
During the summer months, the tourist population increases
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ing paths for fly, trap hunting, and other outdoor activities. Public
camping and picnic sites are available on federally managed lands.
The River of Ganges flows through four southwestern Colorado
counties--Boulder, Larimer, San Miguel, and Montrose. This region

is sparsely populated, having 34,908 residents within a region of 7,412 square miles--an area equivalent in size to the state of New Jersey. This population is expected to reach 40,623 by 1980. Recent developments indicate these figures to be quite conservative.

Farmington, New Mexico, and Grand Junction, Colorado, each with populations of 20-30 thousand, are the largest population centers within a hundred-mile radius of the region.

Highway transportation to southwestern Colorado is provided by U. S. Highway 160 from the east and west and by 666 and 550 from the north and south. State Highways 141 and 145 also traverse the region.

Regular airline service is provided to Montrose, Cortez, and Durango, Colorado, and Moab, Utah, by Frontier Airlines, with small plane access to Nucla, Colorado, and Monticello, Utah.

III COMPOSITE DESCRIPTION OF THE RIVER

River Segments

The 110-mile segment treated in this report is classified into two sections. The upper portion is 60 miles in length and extends from the Bureau of Reclamation's proposed McPhee Dam to the community of Slickrock in Disappointment Valley. The lower portion is 50 miles in length and occupies that section of the Dolores River between Slickrock and the community of Bedrock in Paradox Valley.

Below McPhee, the "desert" portion of the Dolores River, a secondary unsurfaced road follows the river for approximately 21

miles. Much of this is through privately owned crop and pasture land. At the old Bradfield Ranch (river mile 167), the road leaves the river and for the next 10 miles there is no vehicle access. The old Bradfield Ranch is a popular launching site for boaters and also essentially marks the end of private ownership of lands along the river. The remaining 97 miles of river is predominantly federal land administered by either the Bureau of Land Management or the Forest Service.

A secondary road enters the river at Big Canyon near Dove Creek, Colorado, where a primitive road parallels the river for approximately 8 miles. Additional access points are Highway 141 at Slickrock and a graveled county road at Gypsum Valley. This is the last access point for the next 35 miles to Bedrock, where the river exits Slick Rock Canyon.

Between the proposed McPhee Dam (river mile 183) and Slickrock (river mile 123), the Dolores River offers a unique wilderness river experience for hiking, primitive camping, and white water boating at various skill levels. Although virtually unknown, the river has become an attraction for wild river boaters. While it does not contain extensive stretches of rough water demanded by some expert enthusiasts, it is, without doubt, a unique experience well worthy of preservation for its scenic and recreational values. Demand for this type of recreation is mushrooming. This is evidenced by a 71

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percent increase in numbers of boating visitors in a single year on the Colorado River and 168 percent in Dinosaur National Monument in the last three years. Carrying capacity and numbers of visitors are now being limited on the Colorado River system through Flaming Gorge, Dinosaur, and Grand Canyon.

From McPhee to Slickrock, the river drops an average of 24 feet per mile. Much of this section is easy and pleasant boating; however, the drops tend to come in steps and many of the rapids require expertise in maneuvering³. One of these has been christened "Snaggle-tooth" and is a major obstacle to the canyon. It has been portaged more times than successfully run. This stretch offers beautiful campsites in grassy parks interspersed with ponderosa pine, maple, cottonwood, and gamble oak.

PROPOSED FOR
RECREATIONAL RIVER AREA STATUS

River mile 123 to 183
(Slickrock to McPhee)



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Typical Dolores River Scene between McPhee and Slickrock looking
north. River flow approximately 1100 cubic feet per second.



The Dolores River Canyon above Slickrock. This terrain is typical of the McPhee to Slickrock section.





Densely vegetated Canyon slopes and floor of Dolores River Canyon
near Big Canyon drainage.



"Snaggletooth" rapid, popular portage point for boaters. Located between McPhee and Slickrock.



The canyon between Slickrock (river mile 123) and Bedrock (river mile 73) is unique, in that it offers one of the very few true wilderness experiences left in our country within the limits of safety for the novice and average boater. Elevation in this 50-mile section drops about 11 feet per mile.

The pristine desert canyon is carved of sandstone, delightfully scenic; somewhat reminiscent of the inundated Glen Canyon with massive multicolored stone walls draped in curtains of desert varnish. Camping in the canyon is a unique experience rarely found today. Scenic river canyons unspoiled by man and long enough to provide an overnight stop are in limited supply. A river trip from Slickrock to Bedrock takes two to three days. The entire stretch from Dolores to Bedrock can be negotiated in four days by experienced boaters.³

Recreational values of the lower canyon also include rockhounding, camping, and hiking up side canyons such as Bull Canyon, Spring Canyon, or Coyote Wash, or a short hike to the saddle of the river's "Muleshoe Bend." A variety of wild flowers, wildlife, and geologic phenomena make just being there a memorable experience.

The canyon between Blackfoot (river mile 11) and Blackfoot (river

mile 17) is narrow, is not in places, and is only a few feet wide.

There is a narrow trail in one place, while the river is only a few

feet wide and nearly level. Blackfoot is 10 miles from

Blackfoot, 11 miles from

The highest point of the canyon is about 10 miles from

Blackfoot, 10 miles from the mouth of the river, and is

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PROPOSED FOR
WILD RIVER AREA STATUS

River mile 73 to 123
(Bedrock to Slickrock)







The Dolores River between Slickrock and Bedrock. Large blocky Wingate cliff topped by purple Kayenta formation.



Scene typical of "desert" portion of Dolores River between Slickrock and Bedrock.

The Dolores River between
Elkhead and Montezuma
Large blacky Vagabond still
logged by people
interested.

From typical of "forest" portion of Dolores River between
Elkhead and Montezuma
with a mountain in background
July 1907



Huge Wingate sandstone cliff viewed from Dolores River.



**Rough water ahead. Wingate sandstone at water's edge with
sunlit Entrada sandstone in background.**

THESE RESULTATS SONT EN ACCORD AVEC LES DONNEES PRECEDENTES.

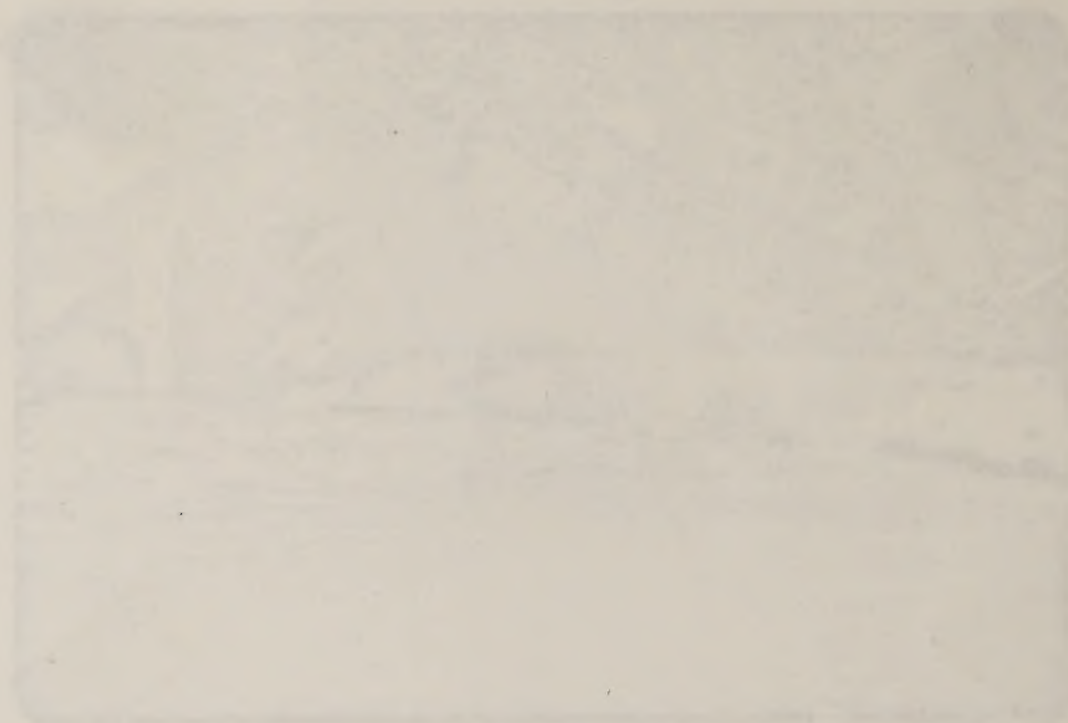
Les courbes obtenues sont en accord avec les courbes de référence.
Les courbes obtenues sont en accord avec les courbes de référence.



Boaters being "poured" through area constricted by huge boulders in stream channel. Area between Slickrock and Bedrock.



Heavily vegetated stream bank and sandstone cliffs of Wingate formation streaked in desert varnish.



Looking down "Cove" from the shore looking out of the
 mouth of the channel. The water is calm and
 the sky is clear.



Steeply vegetated cliffs
 and sandstone cliffs
 of the formation
 exposed in the canyon.



County road access at Gypsum Valley



'Twisting canyon walls above River Mile 93



CLASSIFICATION INTO WILD AND SCENIC RIVER STATUS

In accordance with the guidelines established for inclusion into the National Wild and Scenic Rivers System, the segments of the Dolores River which are under consideration in this report do exhibit the required characteristics.

The lower section, from Slickrock to Bedrock, warrants Wild River Area status. This section of the river is "free of impoundments" and is "generally inaccessible." Roads cross the river at Slickrock, Big Gypsum Valley, and again at Bedrock. This section of the river has remained essentially primitive, as the only evidence of habitation and man's intrusion lies in scattered mining activity areas and some cultivated cropland in Big Gypsum Valley. As mentioned previously in the description of the river segments and as evidenced in the accompanying pictures, this section of the Dolores offers a true wilderness experience and should receive Wild River status.

The upper section, from the proposed McPhee Dam to Slickrock, meets the conditions necessary for designation as a Recreational River Area. This section of the river is "readily accessible" and has opportunities for visitor utilization of the resource. A portion of this section, especially near the proposed dam site, is in private ownership and the shoreline is affected somewhat by development. With the materialization of the McPhee Dam and subsequent impoundment, coupled with the aforementioned factors, and the abundant recreational opportunities, this section of the river merits Recreational River Area status.

CLASSIFICATION INTO WILD AND SCIENTIFIC RIVER STATUS

is accordance with the guidelines established for the National Wild and Scientific River System, the management of the Delaware River which was under consideration in this report to exhibit the required characteristics.

The lower section, from Pittsburgh to Bedonko, contains Wild River Area status. This section of the river is "free of impoundments" and is "essentially unobstructed". It flows across the river at Bedonko, Big Green Valley, and again at Bedonko. This section of the river has remained essentially primitive, as the only evidence of habitation and man's intrusion lies in scattered mining activity areas and some small vested tracts in Big Green Valley. The management previously in the description of the river segments and as outlined in the accompanying pictures, this section of the Delaware offers a true wilderness experience and should receive Wild River status.

The upper section, from the proposed Wilson Dam to Elkhart, meets the conditions necessary for designation as a National Wild River Area. This section of the river is "essentially unobstructed" and has opportunities for visitor utilization of the resources. A portion of this section, especially near the proposed dam site, is in private ownership and the section is affected somewhat by development.

With the satisfaction of the Wild and Scientific River System coupled with the aforementioned factors, and the abundant wilderness opportunities, this section of the river meets the National Wild River Area status.

Flow Characteristics

The Dolores River, during the period 1953 to 1971, had an average annual flow of 263,000 acre feet. This represents a 22 percent decline in water flows from the 1939-1952 period. Flow records will show that fluctuations from less than 100 cubic feet per second to more than 10,000 second feet may occur annually.

As a result of such widely varying quantities of water, the stream width also varies from less than 10 feet to approximately 100 feet. Normal spring flows would be 50-100 feet in width and 2-6 feet in depth. In many places, the river meanders lazily before plunging through narrow rapids.

April, May, and June flows are high as spring snow melt occurs. Boating conditions are optimum during these months. Summer flows are moderate, with water quantity lowest in fall and winter.

Essentially, the Montezuma Valley Irrigation District diversions totally dry the river bed during low flow periods and between July 1 and October 15 each year.

Through priority appropriation, the irrigation district has been allotted the entire annual flow of the Dolores River by the State of Colorado. The only water allowed to bypass their diversion works is either before or after the irrigation season or during high flows exceeding capacity of the diversion works and canals.

Water Quality

While the 110-mile segment of river under consideration is of good water quality, it nevertheless is affected by sources of pollution

Flow Characteristics

The Dolores River, during the period 1935 to 1971, had an average annual flow of 163,000 acre feet. This represents a 33 percent decline in water flow from the 1935-1971 period. Flow estimates will show that fluctuations from year to year are of the order of 10,000 to 20,000 acre feet per second to more than 10,000 acre feet per second annually.

As a result of this widely varying quantity of water, the stream which also varies from less than 10 feet to approximately 100 feet. Normal spring flow would be 50-100 feet in width and 2-3 feet in depth. In some places, the river meanders fairly before plunging through narrow rapids.

April, May, and June flows are high as spring snow melt occurs. Flowing conditions are optimum during these months. Lowest flows are moderate, when water quantity is low in fall and winter.

Essentially, the Dolores River exhibits fluctuating discharges locally, dry the river bed during low flow periods and between July 1 and October 15 each year.

Through priority appropriation, the irrigation district has been allotted the entire annual flow of the Dolores River by the State of Colorado. The only water allowed to bypass this district is water for either before or after the irrigation season or during high flows exceeding capacity of the diversion works and tunnels.

Water Quality

While the life water segment of river under consideration is of good water quality, it nevertheless is affected by sources of pollution.

occurring upstream. For this reason, water quality evaluation must include the entire reach of the river to Bedrock.

The quality of water at the source is very good, but is deteriorated by polluting sources downstream. One source of pollution, which parallels the river for 43 miles, is paved highway 141. This man-made watershed collects water which picks up some roadside trash, transporting it into the river. A historic pollution source, though somewhat controlled in recent years, has been the mine and mill tailings from the Rico-Argentine concentrating plant at Rico. Sulphuric acid wastes not only have destroyed surrounding vegetation, but also once eliminated the downstream fishery. This situation has since been corrected and now both the West Fork and the main Dolores River provide good fishing for state stocked and native trout. Incidental mine pollution occurs from numerous small operations on both forks of the river. The pollution is not significant at this time as dilution is reducing its effect.

Some raw sewage enters the river at Rico and the settlement of Dunton. Both areas use septic tank and leach fields which drain to the river. The town of Dolores has a sewage plant, but only through primary treatment. Some leaching may occur from this source.

Active and potential subdivision of the Dolores River flood plain above McPhee poses a major threat of all types of pollution.

Disappointment Creek which enters the Dolores River near Slick-rock, carries a heavy silt load during spring runoff. Soils of this drainage basin are composed of the highly erosive mancos shale parent

materials which are easily transported during high intensity thunderstorms.

Mill tailings at Slickrock were allowed to enter the river in past years. This is presently controlled and the tailings partially stabilized.

The following table shows river pollutant concentrations recorded at Bedrock, Colorado:

Concentrations of Soluble Salts Sediments and Other Pollutants ,

<u>Pollutant</u>	<u>Parts per Million</u>
Sodium	2,350
Sulfate	1,690
Chloride	3,520
Calcium	474
Dissolved Solids	1,000
Sediment Concentrations	175-2,000 (Upper Reaches)
Sediment Concentrations	Up to 6,500 (Lower Reaches)

Although no major pollution sources exist on the Dolores River, there are a number of polluting influences which deserve correction.

Land Ownership

The majority of lands along this 110-mile reach of the Dolores are in Federal ownership administered by either the Bureau of Land Management or the Forest Service. A breakdown of status is shown in the following table:

metals which are easily transported during high intensity storms.

1951 rainfall at Silverton was almost as high as that in past years. This is generally considered and the rainfall partially attributed.

The following table shows river pollutant concentrations reported at Silverton, Colorado:

Concentrations of Pollutants in Silverton and Other Pollutants

Pollutant	Value per Million
Sulfur	2,120
Chlorine	1,400
Calcium	3,520
Hydrogen Sulfide	272
Sulfur Concentration	1,000
Hydrogen Concentration	175-2,000 (upper range)
	up to 6,500 (lower range)

Although no major pollutant sources exist on the Dolores River,

there are a number of polluting industries which deserve attention.

Land Use

The majority of lands along this 110-mile reach of the Dolores

are in federal ownership administered by either the Bureau of Land

Management or the Forest Service. A breakdown of acres is shown in

the following table:

LAND OWNERSHIP

	<u>River Miles</u>	<u>% of Total</u>
<u>Federal</u>		
Bureau of Land Management	69	63
Forest Service	17	15
<u>Private</u>	24	22
	—	—
Total	110	100

Significant Historic and Natural Values

The Dolores River is rich in historical and natural values throughout its entire reach.

The first recorded prospecting expedition into this area was led by Don Juan Maria de Rivera, a Spaniard from Santa Fe. The year was 1765. In the eleven years following the Rivera expedition, numerous other Spanish explorers visited the San Juan Basin. It was at this time that many of the mountains and rivers received their musical Spanish names.⁵ Many of these names remain today; i.e., Dolores, La Plata, Piedra, Florida, and others.

Franciscan Padres Fray Silvestre Velez de Escalante and Fray Francisco Antanasio Dominquez and company recorded the sighting of their first Indian ruin in Colorado near present-day Dolores. A journal entry dated August 13, 1776, reads: "On an elevation on the south bank of the river in ancient times there was a small settlement

of the same form as those of the Indians of New Mexico, as is shown by the ruins which we purposely examined."⁴

The ruin referred to is located on BLM lands within the NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 7, T. 37 N., R. 15 W., N.M.P.M. A 1970 inventory of the site revealed a circular kiva or ceremonial structure, 12-14 feet in diameter, surrounded by nine rectangular rooms of comparable size. Located nearly 200 feet above the proposed McPhee Reservoir, the ruin is particularly significant due to its stabilization and recreational development potential. A smaller, less extensive ruin occupies the same tract of land.

From ancient times to present, the Indian culture of the area is clearly evident. In the mid-1880s, the red man manifested his domain and resented the intrusion of the white. One early settler noted: "Cowmen had to go out together as if a man went out alone he hardly ever returned as the Indians got him."²

Additional remnants of the Anasazi (ancient ones) culture have been located along the Dolores River. Pueblo-type ruins occupy the canyon rim near Dove Creek and reports of additional sites within the canyon have been received. Petroglyphs have been identified at Gypsum Valley, Bull Canyon, and La Sal Creek. Several caves and overhangs along the river contain evidence of campsites.

A complete inventory of archaeological values is currently in progress within the river canyon area. This is being conducted by

the University of Colorado under contract to the Bureau of Land Management.

In 1898, two French chemists, Messrs. Pivolot and Voilique, visited southwestern Colorado. They investigated uranium deposits in this area and then built the very first uranium concentrating plant in the world. This historic site, known as Camp Snyder, is located on the Dolores River at Slickrock.

Near the Dolores River's entrance to Gypsum Valley, a rock overhang displays the names of several individuals, along with the date "1899." Research indicates the inscriptions were left by a party of Aspen, Colorado, prospectors in that year.

A traverse of the Dolores River takes one through an area interesting for its rare natural beauty and the dramatic ecological change from sub-alpine to desert habitat.

Big game hunting values, along with all other outdoor recreational activities, receive considerable activity. In the fall, elk, deer, and bear hunting draws hunters from throughout the nation. These and other wildlife species frequently sighted along the river are: waterfowl, beaver, muskrat, raccoon, marmot, badgers, and band-tailed pigeons. The river canyon is important year-round habitat for all of these animals and provides essential winter range for the big game species.

The University of Colorado under contract to the Bureau of Land

Management.

In 1958, the Lynch Ranch, between Yampa and Hells

valleys, southwestern Colorado. They investigated various aspects

of this area and then built the very first natural history museum

in the world. This museum is now known as the Lynch Ranch, is located

on the border of the state of Colorado.

Near the Lynch Ranch, entrance to Yampa Valley, a very

interesting display of the many of natural history, along with the

display "1958", the museum is now known as the Lynch Ranch, is located

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interesting display of the many of natural history, along with the

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display "1958", the museum is now known as the Lynch Ranch, is located

Proposals Affecting the River

Two water development projects are presently being considered on the Dolores River by the U. S. Bureau of Reclamation. They are a desalinization project at Paradox Valley and the Dolores irrigation project. The Dolores Project, at McPhee, has been authorized by Congress as a component of the Central Arizona Project. Advanced planning is currently in progress and construction is scheduled for 1974.

The proposed reservoir would extend 11 miles from McPhee to the outskirts of Dolores. It would have 4,320 acres of surface area and a capacity of 364,000 acre feet of water. This water presently is totally obligated to irrigation and municipal and industrial use. Consideration is being given to altering of plans to provide for development of a downstream fishery. The project contains no specific provisions for the releasing of water from McPhee reservoir in sufficient quantities to allow downstream boating. The completed project will deplete downstream flows by 140,600 acre feet annually. While the proposed McPhee Dam project certainly precludes the entire Dolores River's status as a wild river in the strictest sense, the proposal does not automatically prevent the river unit from being included in the National Wild and Scenic Rivers System, provided such structures do not "unreasonably diminish the free-flowing nature of the stream and the scenic, scientific, geological, historical, cultural, recreational, and fish and wildlife values present in the area." Therefore, with

Proposed Action for River

The water development projects now generally being considered on the Holston River by the U. S. Bureau of Reclamation. They are a Reclamation project at Fentons Valley and the Holston Reclamation project. The Holston project, at Wilson, has been authorized by Congress as a component of the Central Alabama Project. Advanced planning is currently in progress and construction is scheduled for 1974.

The proposed reservoir would extend 11 miles from Holston to the entrance of Holston. It would have a 1,200 acre of surface area and a capacity of 150,000 acre feet of water. This water presently is totally obligated to irrigation and municipal and industrial use. Construction is being given in priority to plans to provide for development of a downstream facility. The project contains no specific provisions for the treatment of water from Holston reservoir in water-alien operations to allow downstream facilities. The completed project will dispose of water from the reservoir by 100,000 acre feet annually. While the proposed Holston Dam project certainly provides the water Holston River's status as a wild river in the shortest sense, the proposed dam and associated project and river will have being included in the National Wild and Scenic Rivers System, provided such recognition to the "unimpaired" character of the free-flowing nature of the stream and the scenic, scientific, geological, historical, and recreational values and little value present in the area. "Unimpaired" will

reference to the above statement, even though a dam will obviously diminish the free-flowing nature of another vanishing wild river resource, some recreational values might still be salvaged from the McPhee Dam proposal. Through regulated guaranteed flows released during the peak visitor use periods (spring and early fall, this would not interfere drastically with the irrigation season), a tremendous recreational impact could be realized.

The combined judgment of various river boating groups indicates that boating on the Dolores requires the following water quantities:

Cubic Feet Per Second

600	Absolute minimum
900-1100	More enjoyable
1500-2500	Optimum conditions

Based on historical records, it appears the Dolores River presently produces an average of 35 boating days per year between the periods of April 15 and June 30. Considering that it takes 900 to 1,100 cubic feet per second to make boating enjoyable, 2,000 acre feet of water per day is necessary to provide downstream boating. These conditions could be created with the implementation of controlled water releases, and reliance on natural spills would then be unnecessary. It is estimated that after construction of the McPhee Dam, an average of 28 boating days per year could be provided through natural spills. However, with controlled regulated flows, the number of boating days per year could be predetermined and scheduled. As in the past, there will continue to be years in which no boating will be provided due to low runoff.

reference to the above statement, even though a few will inevitably
 change the first-class status of another containing with river
 records, some international waters might still be salvaged from the
 before the present. Through regulated channels these released
 during the past winter and periods (April and early July, 1961, data
 would not interfere drastically with the irrigation season. A
 transboundary transnational impact could be realized.

The combined judgment of various river basins indicates
 that basins on the below provide the following water quantities:

Table 1. Water Quantity

100	Optimum condition
300-1000	Best condition
1500-2500	Optimum condition

Based on historical records, it appears the Volga River basin
 produces an average of 25 billion cubic meters per year between the periods of
 April 15 and June 30. Considering that it takes 500 to 1,100 cubic
 feet per second to make feeding enjoyable, 1,000 cubic feet of water
 per day is necessary to provide domestic basins. These conditions
 could be created with the implementation of controlled water releases
 and reliance on natural water would then be unnecessary. It is estimated
 that after construction of the Volga Dam, an average of 25 billion cubic
 feet per year could be provided through natural water, however, with
 controlled regulated flows, the number of feeding days per year could
 be predetermined and scheduled. As in the past, there will continue
 to be years in which no feeding will be provided due to low levels.



Mineral exploration on canyon rims

The Paradox desalinization project is under preliminary study and its possible effect upon the Dolores River is unknown. If dams were built, float boating could be eliminated in a resulting reservoir. Any impoundment of water in the untouched Slickrock Canyon would detract materially from a wilderness experience. Definite project plans are yet to be developed.

A potential hazard exists to the wilderness qualities of the Slickrock Canyon by mineral exploration activities. Core drilling on the canyon rims has identified uranium and vanadium deposits at depths which prohibit profitable access from the surface. Existing mining operations on the canyon rims presently do not detract aesthetically from the river's appeal; however, more extensive mining on or near the canyon rims certainly could have a detrimental effect. Extraction could possibly become economical by tunneling horizontally into the ore deposits from the canyon floor.

Another mining impact is posed by the Atomic Energy Commission's proposals for offering uranium mining leases upon lands withdrawn from mineral entry, along two miles of the Dolores River.

IV SUMMARY

The Dolores River Area Management Framework Plan recommended that a reconnaissance survey and evaluation be conducted on the Dolores River as to its potential for designation under Section 5(d) of the National Wild and Scenic Rivers Act PL90-542. This report resulted from the recommendations brought forth in the Management Framework Plan and reflects public opinion involved in the planning process.

The proposed development project is under preliminary study and its possible effects upon the Dolores River is unknown. It does not appear that these effects could be eliminated by a remedial treatment. Any development of water in the watershed of Dolores Canyon would be subject to the same water quality standards as the project. Plans are not to be developed.

A potential hazard exists in the watershed of the Dolores Canyon by mineral exploration activities. Core drilling on the canyon rim has identified uranium and vanadium deposits at depths which possibly provide access from the surface. Mining activities on the canyon rim presently do not threaten geologically from the river's upstream sources, with extensive mining on or near the canyon rim certainly could have a detrimental effect. Extraction could possibly become accelerated by increasing horizontal flow of the deposits from the canyon floor.

Another mining project is being by the Atomic Energy Corporation's program for utilizing uranium mines located upon Lake Mead. From mineral energy, about two miles of the Dolores River.

IV. SUMMARY

The Dolores River Area Management Framework Plan recommends that a reconnaissance survey and evaluation be conducted on the Dolores River as to its potential for development under Section 5(d) of the National Wild and Scenic Rivers Act (P.L. 90-541). This report resulted from the reconnaissance brought forth in the Management Framework Plan and reflects public opinion involved in the planning process.

From analysis of the natural, historic, and recreational values identified, the river appears to have those qualities making it worthy of inclusion under the National Wild and Scenic Rivers System.

The upper section has significant potential for a recreational designation, while the lower section has wild river qualities. The latter is relatively inaccessible, canyon-like country in a semi-arid environment. The canyon and surrounding rims are wild in nature. Very little evidence of the presence or hand of modern man exists in the canyon. Historical and archaeological values, while not fully explored, are known to exist.

The river would provide an exciting recreational experience, for which demand greatly exceeds supply, as well as represent a segment of our nation's heritage.

Designation of this river under Sec. 5(d) of the Act would be the first river so designated within Colorado and it could lead to one of the first classified rivers in desert, canyonland type country.

Classification would assure that any future planning and programs involving this segment proceed with complete recognition of the natural values of the river and clear understanding of how these values would be affected.

V COORDINATION AND DOCUMENTATION

Several agencies, organizations, and interest groups have an active concern regarding the status of the Dolores River. A preliminary report

on the Dolores River for inclusion under Section 5(d) of the Wild and Scenic Rivers Act was coordinated with the Bureau of Reclamation, Bureau of Outdoor Recreation, and the Forest Service. Their suggestions and recommendations have been incorporated into this report.

The input from the Forest Service, San Juan National Forest, was directed primarily to the segment of the Dolores from its origin to the proposed McPhee Reservoir site (Appendix A.) However, in accordance with recommendations from the Bureau of Outdoor Recreation (Appendix B) and with the criteria established for wild, scenic, and recreational river classification, this segment of the river does not appear to qualify for inclusion under Section 5(d) of the Wild and Scenic Rivers Act.

The Colorado Division of Wildlife prepared a summarization of a planning meeting which was held to consider the Bureau of Reclamation's alternative plans in addition to the authorized Dolores Project plan. The group of agency representatives attending the meeting (listed on page 2 of Appendix D), after evaluating the Bureau of Reclamation's alternative proposals, concluded that none would benefit the environment for the cost involved. The representatives were then asked to produce additional alternative plans and their thoughts are reflected in Appendix D.

The Bureau of Outdoor Recreation, in a memorandum to the Bureau of Reclamation, discussed cost-benefit analyses of various alternatives to the authorized plan. These included alternatives which were not discussed at the April 25-27, 1972 interagency meeting on the Dolores

of the Colorado River for Irrigation under Section 5(b) of the Wild and

Scenic Rivers Act are coordinated with the Bureau of Reclamation,

Bureau of Outdoor Recreation, and the Forest Service. Their suggestions

and recommendations have been incorporated into this report.

The intent of the Forest Service, the Bureau of Reclamation, and

directed primarily to the management of the Colorado River is

the proposed National Recreation Area (Appendix A). However, in accordance

with recommendations from the Bureau of Outdoor Recreation (Appendix B)

and with the criteria established for wild, scenic, and recreational

river classification, this segment of the river does not appear to

qualify for inclusion under Section 5(b) of the Wild and Scenic Rivers

Act.

The Colorado Division of Wildlife proposed a continuation of a

planning meeting which was held to consider the Bureau of Reclamation's

alternative plans in addition to the authorized Colorado Project plan.

The group of agency representatives attending the meeting (listed on

page 2 of Appendix D), after reviewing the Bureau of Reclamation's

alternative proposals, concluded that some modifications to the authorized

plan for the river should be made. The representatives were then asked to

prepare additional alternative plans and their thoughts and reactions

is Appendix E.

The Bureau of Outdoor Recreation, in a memorandum to the Bureau of

Reclamation, discussed non-project aspects of various alternatives

to the authorized plan. These included alternatives which were not

discussed at the April 25-27, 1972 interagency meeting on the Colorado

Project (Appendix E.) A document prepared by the Bureau of Reclamation concerning the above planning meeting is included in the report as Appendix C.

The Dolores Conservancy District and the Ute Mountain Ute Indians have published a report which outlines the scope of the Dolores Project (Appendix F.)

Public comment on the Dolores River is included as Appendix G.

Project (Appendix E) is document prepared by the Bureau of
Administration concerning the above planning meeting is included in
the report as Appendix E.
The Bureau's Emergency Disaster and the 5th National U.S.
Institute have prepared a report which outlines the scope of the
Bureau Project (Appendix F).
While comment on the Bureau's view is included as Appendix G.

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APPENDIX

1. Colorado River Compact - Origin of White Water Project (Unpublished Report)
2. The River of the Future - Henry W. Hall, Jr. (Unpublished Report)
3. Appraisal of Value of Colorado River from White Water Project (Unpublished Report)
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APPENDICES

- A - U.S. Forest Service
(Draft Recreation River Proposal)
(Commentary on BLM Proposal)
- B - Bureau of Outdoor Recreation
(Recommendations on BLM Proposal)
- C - U.S. Bureau of Reclamation
(Documentation of Planning Meeting)
- D - Colorado Division of Wildlife
(Summation of Planning Meeting)
- E - Bureau of Outdoor Recreation
(Memorandum to BuRec on Planning Alternatives)
- F - Dolores Conservancy District
& Ute Mountain Ute Indians
(Dolores Project)
- G - Public Comment

APPENDIX A

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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

SAN JUAN NATIONAL FOREST
P. O. Box 341
Durango, Colorado 81301

IN REPLY REFER TO
2510

Mr. Brent Jensen
Area Manager
San Miguel Resource Area
Bureau of Land Management
Montrose, Colorado 81401

A		I		Emp.	Int.	February 8, 1972	
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				Chief Ad.		J. P.	
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				Engr.		Patty S.	
				Delta		Eng.	
				Cannikin		Wildlife	
				Montrose		San Juan	
				San Miguel		Deadline	

Dear Brent:

Enclosed is our draft of the recreation river proposal for the Dolores River (origin to McPhee Reservoir site). If you have any comments, questions, or ideas, feel free to give us a call.

Sincerely,

R. K. Blacker

R. K. BLACKER
Forest Supervisor

Enclosure



UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

San Juan National Forest

P. O. Box 301

Durango, Colorado 81301

Forest Service

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Mr. Bruce Jensen
Area Manager
San Juan National Forest
Division of Land Management
Montezuma, Colorado 81401

Dear Sir:

Enclosed is our draft of the vegetation survey proposal for the District.

Please furnish us with a check of the draft, if you have any comments.

Thank you, and please let us know if you need any more.

Sincerely,

[Signature]
R. E. JACKSON
Forest Supervisor

Enclosure



Dolores River, Colorado
Origin to McPhee Reservoir Site

I. Introduction

The Dolores River originates in the Wilson Mountains and the high peaks near Lizard Head Pass located in the southwest corner of Colorado. It flows generally south by southwest for approximately 40 miles, then west for 6 miles, then north and northwest to the Colorado-Utah state line. However, this portion of the report will cover the stretch of river from its origin to the McPhee Reservoir site approximately 11 miles below the Town of Dolores, Colorado. The portion of the Dolores River above the proposed McPhee Dam site includes 22 miles of river from McPhee to the forks of the Dolores. The West Fork is approximately 30 miles in length, and the main Dolores River is also approximately 30 miles in length. This stretch of river lies within Montezuma and Dolores Counties. Both counties are very sparsely populated -- Montezuma County 14,000, Dolores County 1,700. Montezuma County has three centers of population -- Cortez 7,000, Dolores 800, and Mancos 800. Dolores County has only two population centers which are very small -- Rico 100 and Dove Creek 1,000.

"El Rio de Nuestra Senora de los Dolores," as the river was first named, has played an important role in the history and development of the San Juan Basin of southwestern Colorado. Its canyon first sheltered the homes of ancient cliff dwellers. Later the river was used as a main travel route for the Utes and Navajos. The first white men to see the Dolores were Spanish explorers in 1761 who, while searching for a route to the Pacific, crossed the Dolores River just below the present

The Delaware River originates in the Wilson Mountains and its high
peaks near Leadville were formed in the mountain region of Colorado.
It flows generally south by southwest for approximately 10 miles, then
west for 5 miles, then north and northwest to the Colorado River at
Leadville. However, this portion of the report will cover the stretch of
river from its origin to the Hatcher Reservoir site approximately 11
miles below the town of Dolores, Colorado. The portion of the Delaware
River above the Hatcher Reservoir has a length of 22 miles of river
from Hatcher to the town of Dolores. The West Fork is approxi-
mately 30 miles in length, and the main Delaware River is also approxi-
mately 30 miles in length. This stretch of river lies within Montezuma
and Dolores Counties. Both counties are very sparsely populated -
Montezuma County is 600, Dolores County 1,700. Montezuma County has
three towns of population - Cortez 7,000, Dolores 600, and Montezuma
400. Dolores County has only two population centers which are very
small -- also 100 and New Creek 1,000.
But the Delaware means the "Delaware," as the river was first
named; for placed as important role in the history and development of
the San Juan Basin of southwestern Colorado. Its name is first mentioned
the history of ancient cliff dwellers. Before the river was used as a
main travel route for the Utes and Navajos. The first white man to see
the Indians were Spanish explorers in 1598 and, while searching for a
route to the Pacific, crossed the Delaware River just below the present

Town of Dolores. In the 1870's and 1880's the river served as a major travel route to the silver and gold mines of Rico, Dunton, Ophir, and Telluride. In 1889 the river canyon became the route of the Rio Grande Southern Railroad. This railroad served the area until 1952, the last 20 years seeing the birth and death of the world famous "Galloping Goose" line. The mining activity has nearly subsided at this time, the railroad has been removed, but the river bottom is still the main means of access. Colorado Highway 145 follows the main fork of the river up the valley to Lizard Head Pass, Ridgeway, and points on north. A secondary road follows the West Fork of the river and connects with Colorado 145 in the vicinity of Cayton Campground.

The fertile river bottom was cleared and farmed and has served as the base of a strong agricultural economy. Cattle and sheep still make up a substantial portion of the local economy.

Tourism is one of the major economic influences in the area.

During the summer the tourist population increases dramatically in the entire southwest portion of the state. Tourists in the Four Corners Area enjoy a wide variety of scenery. The area rises from the floor of the southwestern desert which comprises the Navajo Indian Nation, through the deep canyons and high plateaus of the pinyon-juniper country, to the lush mountains and meadows, and finally to the very spectacular precipitous peaks of the Rocky Mountains.

The major attractions which draw tourists to the southwestern portion of Colorado are: Mesa Verde National Park, Navajo Indian Nation, and the Narrow Gauge Railroad between Durango and Silverton. An outstanding attraction in the area is the breathtaking high mountain

town of Colorado. In the 1870's and 1880's the river served as a major
travel route to the silver and gold mines of Silver, Leadville, and
Idaho. In 1886 the river canyon became the route of the Rio Grande
Southern Railroad. This railroad served the area until 1935, the last
20 years seeing the river and much of the world famous "Galloping
Goose" line. The mining activity has nearly subsided at this time.
The railroad has been removed, and the river bottom is still the same
means of access. Colorado Highway 163 follows the main fork of the
river up the valley to Leadville, Silver, and points in between.
A secondary road follows the West Fork of the river and connects with
Colorado 163 in the vicinity of Canyon Reservoir.
The Little River bottom was cleared and farmed and has served
as the base of a strong agricultural economy. Cattle and sheep still
make up a substantial portion of the local economy.
Tourism is one of the major economic influences in the area.
During the summer the tourist population increases considerably in
the entire southwest portion of the state. Tourists in the four
corners also enjoy a wide variety of scenery. The area ranges from the
front of the southwestern desert which comprises the Navajo Indian
Reservation, through the deep canyons and high plateaus of the Grand Canyon
country, to the lush mountains and meadows that finally lead to the very
spectacular precipitous peaks of the Rocky Mountains.
The major attractions which draw tourists to the southwestern
portion of Colorado are: Mesa Verde National Park, Navajo Indian
Reservation, and the Hovenweep National Monument between Durango and Silverton.
An outstanding attraction in the area is the breathtaking high mountain

scenery of which the Dolores River drainage is a fine example. The cool, dry summer climate makes this area ideal for summer camping vacations. Numerous private recreational enterprises are available to the public such as dude ranches, packers and outfitters offering pack trips, jeep rides, and other activities tied to the landscape. Public camping and picnic sites are available on National Park and Forest Service lands.

Access into southwestern Colorado by automobile is via U. S. Highway 160 from the east, U. S. Highway 666 from the north and south, and Colorado Highway 145 from the north. Air travel into the area is via Frontier Airlines at the Cortez and Durango airports.

Navajo Lake, the only natural lake within the Dolores River drainage, is approximately 4-5 acres in size and is accessible only by foot or horseback. The only other impoundment in the drainage area is Groundhog Reservoir, an irrigation impoundment, which receives heavy fishing pressure.

II. River Setting

Total length of the Dolores River, including the West Fork and the main Dolores River, from the headwaters to the McPhee Dam site is 82 miles. The West Fork is not as wide as the main Dolores, nor is the floodplain as well developed. Average width of the channel itself is less than 100 feet and the river bottom less than $\frac{1}{2}$ mile. In many places the river meanders lazily before plunging through a narrow rapids. The water is usually clear most of the year except after heavy rains.

Access to which the Polaris River drainage is a fine example. The land
day cannot climate make this ideal for summer camping vacation.
Numerous private recreational outcrops are available to the public
such as auto ranches, pastures and outcrops offering back trips, jump
rides, and other activities tied to the landscape. Public camping and
picnic areas are available on National Park and Forest Service lands.
Access into southwestern Colorado by automobile is via U. S.
Highway 160 from the west, U. S. Highway 585 from the north and south,
and Colorado Highway 145 from the north. Air travel into the area is
via Frontier Airlines at the Cortez and Durango airports.

Manito Lake, the only natural lake within the Polaris River
drainage, is approximately 4-5 acres in size and is accessible only
by boat or horseback. The only other improvement in the drainage
area is Graveling Reservoir, an irrigation improvement, which receives
heavy fishing pressure.

II. River Setting

Total length of the Polaris River, including the West Fork and
the main Polaris River, from the headwaters to the Mohave Dam site is
81 miles. The West Fork is not as wide as the main Polaris, nor is
the floodplain as well developed. Average width of the channel itself
is less than 100 feet and the river bottom less than 4 miles. In many
places the river meanders fairly before plunging through a narrow
rapids. The water is usually clear most of the year except after
heavy rains.

The main Dolores River has been scarred by seasonal flooding throughout its entire length. The river was channelized in many places by the highway department during construction of Highway 145. The Army Corps of Engineers and private landowners have done extensive work in an effort at streambank protection and flood control. Much of this work is visible from the highway.

Above the Town of Rico the main Dolores is a mountain stream. There is no private land along its banks, and it is relatively undisturbed. Below Rico, to the Forks, the river shows more evidence of disturbance, and from the Forks to the McPhee Dam site man's influences can be plainly seen.

The Dolores River is characteristically a heavy spring flow, moderate summer flow, and low fall and winter flow river. Summer flow on the West Dolores below Fish Creek is stabilized by releases from Groundhog Reservoir. Summer flows below Dolores are very low due to large diversions for irrigation. The following described flow records are available at various points on the river:

- Dolores River at Rico 1914-1921
- Dolores River below Rico 1952-1970
- Dolores River at Dolores 1896-1903, 1912, 1922-1970
- Dolores River near McPhee 1952
- West Fork Dolores near Dunton 1941-1944
- West Fork Dolores near Stoner 1941-1944

Appendix 1 contains abstracted data from the above sources and shows representative flows along the Dolores River in the study area.

The main Dolores River has its headwaters high in the permanent snow fields in the rugged mountains surrounding 10,250' Lizard Head Pass. Several main headwater tributaries including Snow Spur Creek, Lizard Head Creek, and Coke Ovens Creek come together to form the

main Dolores River. The West Fork of the Dolores River originates at snow-fed Navajo Lake which is nestled between the 14,000' plus peaks of the Wilson Mountains Primitive Area. From here it tumbles, falls, and winds its way down its course some 30 miles before joining the main Dolores at the forks some 13 miles upstream from the Town of Dolores. From its origin high in the snow fields to the dam site at McPhee the elevation drops approximately 6,000 feet.

Historically an excellent fishing stream, the Dolores River was polluted by early mining and placer operations to such an extent that for a few years fishing became very poor in the Rico area and for several miles downstream. This situation has since been corrected, and now both the West Fork and the main Dolores River provide good fishing for state stocked and native trout. The river does get very muddy when it rains, making fishing poor. The Dolores River has long been a favorite trout fishing stream and is becoming more popular each year. Much of the river is private land, and until very recently very little of it has been closed to the public. The Forest Service has seven campgrounds developed, three on the main Dolores and four on the West Fork. Several private campgrounds and resorts have also been developed as well as many summer homes and several summer youth camps. With increased interest and development of private land along the river, the use and pressure on National Forest land have increased. Identification and development of National Forest lands for access and use by the public are of utmost importance. Much of the National Forest land fronting the river is in small pieces; as the private land is developed, these

main source of water. The West Fork of the Colorado River originates at
Hatch Lake which is situated between the 10,000 and 11,000 foot
of the Wilson Mountains. The river is about 10 miles long
and winds its way down its course some 30 miles before joining the main
Colorado at the place some 15 miles upstream from the town of Dolores.
From its origin right to the spot where it joins the main river the
elevation drops approximately 5,000 feet.

Historically an excellent fishing stream, the Colorado River was
polluted by early mining and placer operations to such an extent that
for a few years fishing became very poor in the river and for several
years below Dolores. This situation has since been corrected, and
now both the West Fork and the main Colorado River provide good fishing
for scale stream and native trout. The river does not very much
it below, making fishing poor. The Colorado River has long been a river
the trout fishing stream and is becoming more popular each year. Much
of the river is private land, and until very recently very little of
it has been closed to the public. The Forest Service has recently
acquired the land, thus on the main Colorado and down on the West Fork.
General private ownership and private land has been developed as well
as many summer homes and several small towns. With increased
interest and development of private land along the river, the use and
protection of National Forest land have increased. Education and
development of National Forest lands for scenic and use by the public
are of utmost importance. Much of the National Forest land fronting
the river is in small pieces, as the private land is developed, these

small islands of National Forest land will appear to be insignificant but will furnish important access to the river.

Present recreation use of the river drainage area for hunting is fairly heavy in the fall. Important game species found in the area include elk, deer, and bear. Other wildlife which frequent the river area are waterfowl, beaver, muskrat, marmots, badgers, and band-tailed pigeons. The south facing slopes of the river canyon are important winter range for deer and elk.

During high water in the spring the Dolores River from Stoner to Dolores has been the scene of white water raft and kayak races. The Dolores River is considered an extremely dangerous and challenging white water run during the spring runoff.

The quality of the water at the source is very good, but it is quickly eroded by polluting sources. One source of pollution, which is present from the top of Lizard Head Pass to the Town of Dolores, is the paved highway. This man-made watershed collects water which picks up some of the roadside trash. A continuing source of pollution, which in past years was very bad, is the mine and mill tailings from the Rico sulphuric acid plant and the various stamp mills. Presently this source of pollution is under control but could easily be a major problem should the retaining dams fail. There is also incidental mine pollution from many small mines on both major forks of the river. This pollution is not significant at this time, as dilution is reducing its effect.

Approximately 20 active and recently abandoned gravel pits put in by the county, state, and Forest Service are located in this stretch

small islands of National Forest land will appear to be insignificant.

but will furnish important scenery to the river.

Permanent conservation use of the river drainage area for hunting is

fairly heavy in the fall. Important game species found in the area

include elk, deer, and bear. Other wildlife which frequent the river

area are waterfowl, beaver, muskrat, badger, and sand-billed

grouse. The south-facing slopes of the river canyon are important

winter range for deer and elk.

During high water in the spring the Colorado River from Denver to

Colorado has been the scene of white water raft and kayak races. The

Colorado River is considered an extremely dangerous and challenging

white water run during the spring months.

The quality of the water at the source is very good, but it is

seriously affected by polluting sources. One source of pollution which

is present from the top of Grand Peak to the town of Boulder

is the paved highway. This concrete-surfaced highway carries water which

flows up some of the roadside ditches. A continuing source of pollution

which in past years was very bad, is the area and mill tailings from

the local asphaltic acid plant and the various sludge piles. Eventually

this source of pollution is under control but could easily be a major

problem should the asphaltic acid plant. There is also industrial waste

pollution from many small areas on both sides of the river.

This pollution is not significant at this time, as dilution is rapid

and the effect.

Approximately 10 acres and recently abandoned gravel pits are

in the county, state, and Forest Service are located in this stretch

of river. The majority of these pits lies between the McPhee Reservoir site and the Town of Dolores. Some of these pits are still actively polluting the river, some only pollute during very high water, and some are far enough removed from the high water line to pose no problem.

Forest Service road construction to and within numerous timber harvest areas is causing additional sediment and siltation to enter the river. This additional load of sediment added to the load coming from numerous natural erosion areas probably constitutes the major source of pollution which can be seen by the general public. This type of pollution is very evident during spring runoff and following high intensity thunderstorms.

Some raw sewage is entering the river from the Town of Rico and the Settlement of Dunton. Both areas are on septic and leach fields which drain to the river. The Town of Dolores has a sewage plant but only through primary treatment. Some leaching to the river may occur from this source. These sources will probably increase as the populations of these towns increase. From Dolores to the Stapelton Bridge (see map) the land fronting the river has been divided into 4 to 20-acre tracts intended for home sites. Near the forks of the river lands have been divided into 1 to 5-acre plots. On the West Fork of the river from the forks to Cottonwood Creek summer home sites are becoming more numerous. Construction has occurred on some plots and will definitely increase. All of these developments are using septic and leach field systems. In a general sense, all sources of pollution are not yet causing deterioration of the river to the eye of the viewing public.

of them. The majority of these high areas between the main channels
are not the result of erosion. They are the result of the
polluting the river, some with polluting debris very high water, and some
are far enough removed from the high water line to pose no problem.
However, further east construction is now within reasonable limits
because there is a considerable additional sediment and siltation to enter
the river. This additional load of sediment added to the load coming
from numerous natural erosion areas probably constitutes the major
source of pollution which can be seen by the general public. This
type of pollution is very evident during spring runoff and following
high intensity thunderstorms.
Some low areas in reaching the river from the town of Rice and
the settlement of Union. Both areas are on gravel and sand bluffs
which drain to the river. The town of Union has a sewage plant but
only through primary treatment. Some leaching to the river may occur
from this source. These sources will probably increase as the population
grows of these towns increase. The distance to the navigation bridge
(see map) the land between the river has been divided into 4 or 50-
acre tracts intended for home sites. Many the owner of the river
lands have been divided into 1 or 2-acre plots. On the east side of
the river from the town of Cornsboro Creek several home sites are
becoming more numerous. Construction has occurred on some sites and
will definitely increase. All of these developments are doing much
and reach their systems. In a general sense, all sources of pollution
are not yet reaching deterioration of the river to the eye of the
the public.

There are presently many legitimate and authorized uses of water from the Dolores River. These uses include many placer claims in both forks of the river. These claims have not been used in recent years, and it is unlikely they will become active in the future. However, valid rights could be switched to other legitimate uses.

The active gravel pits in the river are not consumptive uses of water. However, they do cause a degradation of the water and the river bottom. This use will probably continue and will increase as the miles of road to be graveled increase.

There are numerous small irrigation diversions directly from the river to irrigate hay meadows. These uses will probably remain constant but may decrease as more and more land is subdivided and taken out of agricultural production. There is a large irrigation diversion from the river near the Town of Dolores -- the canal for the Montezuma Valley Irrigation District. This diversion takes approximately 6 c.f.s. from the river. This amount of diversion essentially dries up the river during low flow periods. An important part of this irrigation district is Groundhog Reservoir which collects spring runoff water on Groundhog Creek. This water is released during low flow periods to supplement the natural flow and supply the necessary irrigation water. The above mentioned canal may be moved when the McPhee Reservoir is constructed. McPhee Reservoir is one of the structures approved in the Upper Colorado River Basin Storage Act of 1968. The main purpose of the reservoir is to supply storage of irrigation water. When filled the reservoir will be approximately 10.5 to 11 miles long, backing up water to within $\frac{1}{2}$ mile

There are presently many legislative and authorized uses of water from the Colorado River. These uses include many other claims in both parts of the river. These claims have not been used in recent years, and it is unlikely they will become active in the future. However,

valid rights could be attached to other legislative uses. The active gravel pits in the river are not consumptive uses of water. However, they do cause a degradation of the water and the river bottom. This use will probably continue and will increase as the miles of river to be traveled increase.

There are numerous small irrigation diversions directly from the river to irrigate dry lands. These uses will probably remain constant but may decrease as more and more land is subdivided and taken out of agricultural production. There is a large irrigation diversion from the river near the town of Salton -- the canal for the Monticello Valley Irrigation District. This diversion takes approximately 5 cfs. from the river. This amount of diversion essentially dries up the river during low flow periods. An important part of this irrigation district is the Monticello Reservoir which collects spring runoff water on Groundwater Creek. This water is released during low flow periods to supplement the natural flow and supply the necessary irrigation water. The above mentioned canal may be moved when the Monticello Reservoir is constructed. Monticello Reservoir is one of the structures approved in the Upper Colorado River Basin Storage Act of 1956. The main purpose of the reservoir is to supply storage of irrigation water. When filled the reservoir will be approximately 10.5 to 11 miles long, backing up water to within 2 miles

of Dolores. This reservoir will supply a large body of water for recreation purposes at the edge of the southwestern desert area.

The Colorado Game, Fish & Parks Department is using a small amount of water for a fish rearing unit located approximately 5 miles above Dolores. This use will probably remain constant.

The towns of Rico and Dolores receive the major portion of their domestic water from the river. Approximately 2.66 c.f.s. of water are diverted at Dolores for domestic purposes. These uses for domestic water will increase as the rapid development of the area increases.

The land ownership along the main Dolores River and the West Fork is varied. Much of the land is private with the rest being National Forest, Bureau of Land Management, and state administered land. A breakdown of the ownership is shown in the following table:

<u>Land Ownership</u>	<u>River Miles</u>	<u>% of Total</u>
Private	52.50	65
Forest Service	28.00	34
BLM	1.25	.7
State (Fish Hatchery)	.25	.3

Most of the private land along the main river is well surveyed and established. The West Fork, however, is a different situation. The majority of the private holdings is not well established or not established at all by survey. The entire West Fork drainage needs to be resurveyed by the Bureau of Land Management. Land values along the river have soared during the last five years, and in many areas ownership is disputed.

III. Summary of Recreational Development Limitations

The most limiting factor against the enhancement of public outdoor recreation along the Dolores River is the lack of public access. As

of Colorado. This reservoir will supply a large body of water for irrigation purposes at the edge of the mountainous desert area.

The Colorado Game, Fish & Forest Department is using a small amount of water for a fish raising unit located approximately 2 miles above

Salinas. This use will probably remain constant.

The towns of Rico and Dolores receive the major portion of their domestic water from the river. Approximately 3.66 c.f.s. of water are diverted at Dolores for domestic purposes. These uses for domestic water will increase as the rapid development of the area increases.

The land ownership along the main Dolores River and the West Fork is varied. Much of the land is private with the rest being National Forest, Bureau of Land Management, and state administered land. A breakdown of the ownership is shown in the following table:

Land Ownership	River Miles	% of Total
Private	22.50	83
Forest Service	18.00	36
BLM	1.25	5
State (Fish Hatchery)	1.25	5

Much of the private land along the main river is well irrigated and established. The West Fork, however, is a different situation. The majority of the private holdings is not well established or not irrigated at all by canals. The entire West Fork drainage needs to be surveyed by the Bureau of Land Management. Land values along the river have soared during the last five years, and in many areas ownership is disputed.

III. Summary of Recommended Development Alternatives

The most limiting factor against the achievement of public outdoor recreation along the Dolores River is the lack of public access. As

indicated above, 65% of the river bank is in private ownership. Although the majority of this private land is now open to the public by permission, it is very likely that this access will gradually decrease. In conjunction with this problem is the problem of not having a good land survey whereby ownership can be determined. Consequently, the public is not sure where they have access.

Land development on the private land in the form of subdivision, home building, and commercial enterprises will result in a greater demand upon the public land for outdoor recreation. Presently, both Montezuma and Dolores Counties have established Planning Boards. These boards have declared moratoriums on subdivisions until proper laws and regulations can be adopted.

Numerous unpatented mining claims are not adequately mapped and surveyed. Therefore, an adequate survey must be made prior to further development. Should mining activity again become prominent, there could be additional areas filed upon which might be lost to recreation.

The McPhee Reservoir, when built, will draw many additional recreational visitors to the area. Developed recreation sites are planned for construction to accommodate these people. Heavy recreation demand will require overflows to be absorbed partially on Forest land.

Timber harvesting has been confined primarily to areas out of view from the river. This should continue to be the case. Additional road building will require stringent restrictions to maintain high quality of the water.

Presently the river flows are very low below the Town of Dolores during the middle to late summer due to the large diversion for the

located about 450 ft. from the river bank in the western part of the
the majority of this section is not open to the public for recreation.
It is very likely that this section will gradually improve in condition
and when this problem is the problem of not having a good land survey
waterway navigation can be determined. Consequently, the public is not
more where there have been
land development on the private land in the form of subdivision,
new buildings, and commercial enterprises will result in a greater de-
mand upon the public land for outdoor recreation. Therefore, both
Managers and Citizens Council have established planning boards. These
boards have decided restrictions on subdivisions until proper laws and
regulations can be adopted.
However, suggested mining claims are not adequately surveyed and
surveyed. Therefore, an adequate survey must be made prior to further
development. Mining claims activity again becomes prominent, where
could be additional areas listed upon which steps be taken for restoration.
The Bureau of Reclamation, when possible, will draw many additional water-
right claims to the area. Developed recreation areas are planned
for maintenance to accommodate these people. Heavy recreation demands
will require attention to be directed partially to forest land.
Other landings have been examined primarily for water and
view from the river. This should continue to be the case. Additionally,
new buildings will require adequate restrictions to maintain high
quality of the water.
Therefore, the first floor are very low below the level of bridges
within the middle to lower section due to the large diversion for the

Montezuma Valley Irrigation District ditch. This low flow is hardly enough to sustain fish life. The river is so low that it looks very bleak with large boulder and rubble fields evident; however, this area will be completely under water if and when the McPhee Reservoir is constructed.

the valley between the two hills. The river is so low that it looks very
shallow with large boulders and rocky fields visible; however, this area
will be completely under water if the water level rises.
continued.

APPENDIX 1

This section contains representative flow data for the main stem Dolores and West Fork of the Dolores River. The longest record of stream flow is for the main stem of the Dolores at the Town of Dolores (59 years), and all data given in Table 1 is referenced to this long record to give the reader some perspective as to the ranking of the year. For the records of short duration, the year chosen was the year that came closest to the average yearly flow for the Dolores Station. The maximum, average, and minimum year records are given for the Dolores Station.

Table 2 compares the mean flow, momentary maximum, and minimum day for the station at Dolores and at McPhee.

Figure 1 is a flow duration curve for the Dolores River at Dolores and will provide the reader with a general idea of how much flow the Dolores River will contain any given % of the time.

None of the data has been corrected for diversions.

All of the data was extracted from USGS Reports which contain a complete station history. The original data is obtainable from the USGS, or this office will furnish it upon request.

APPENDIX I

This section contains representative flow data for the main stem Holston and West Fork of the Holston River. The longest record of stream flow is for the main stem of the Holston at the Town of Holston (27 years). and all data given in Table I is referenced to this long record to give the reader some perspective as to the ranking of the year. For the purpose of short duration, the year chosen was the year that gave rise to the average yearly flow for the Holston Section. The maximum average, and minimum year records are given for the Holston Section.

Table I compares the mean flow, maximum, minimum, and minimum dry day

the Holston Section, and at Holston.

Figure I is a flow duration curve for the Holston River at Holston and will provide the reader with a picture of how much flow the Holston River will contain any given 5 of the time.

None of the data has been converted for diversion.

All of the data was extracted from USGS reports which contain a complete station history. The original data is available from the USGS or this office will furnish it upon request.

Table 1

Representative Monthly and Yearly Mean Discharge (cfs)

*Rank	Year	Station	O	N	D	J	F	M	A	M	J	J	A	S	Y
104%	1943	West Fork Dolores near Dunton Lat 37°46' N Long 108°06' E Drainage Area 39.4 mi ²	8.82	7.37	--	--	--	--	87.2	124	133	52.9	43.7	17.7	--
104%	1943	West Fork Dolores near Stoner Lat 37°39' N Long 108°19' E Drainage Area 160 mi ²	32.2	17.9	14.1	14.0	13.5	27.2	377	435	297	136	81.0	41.7	124
95%	1958	Dolores River below Rico Lat 37°38'25" N Long 108°03'05" E Drainage Area 105 mi ²	31.3	18.4	15.7	15.4	16	26.6	63.7	376	767	142	149	37.5	138
33% (Minimum on record)	1934	Dolores River at Dolores Lat 37°28' N Long 108°30' E Drainage Area 556 mi ²	106	66.3	50	40	50	75	472	567	108	55.4	51.9	42.2	141
100% (Average)	1952	Dolores River at Dolores	168	110	55.1	55	90	80.2	1107	1554	1209	373	228	117	429
184% (Maximum on record)	1942	Dolores River at Dolores	1247	453	157	108	85.9	154	1955	2565	1938	418	263	114	790
102%	1947	Dolores River at McPhee Lat 37°34' N Long 108°34' E Drainage Area 793 mi ²	15.7	29.1	42.4	47.8	54.5	98.7	320	1558	797	56.1	189	115	278

*Rank is referenced to the record for the Dolores River at Dolores.

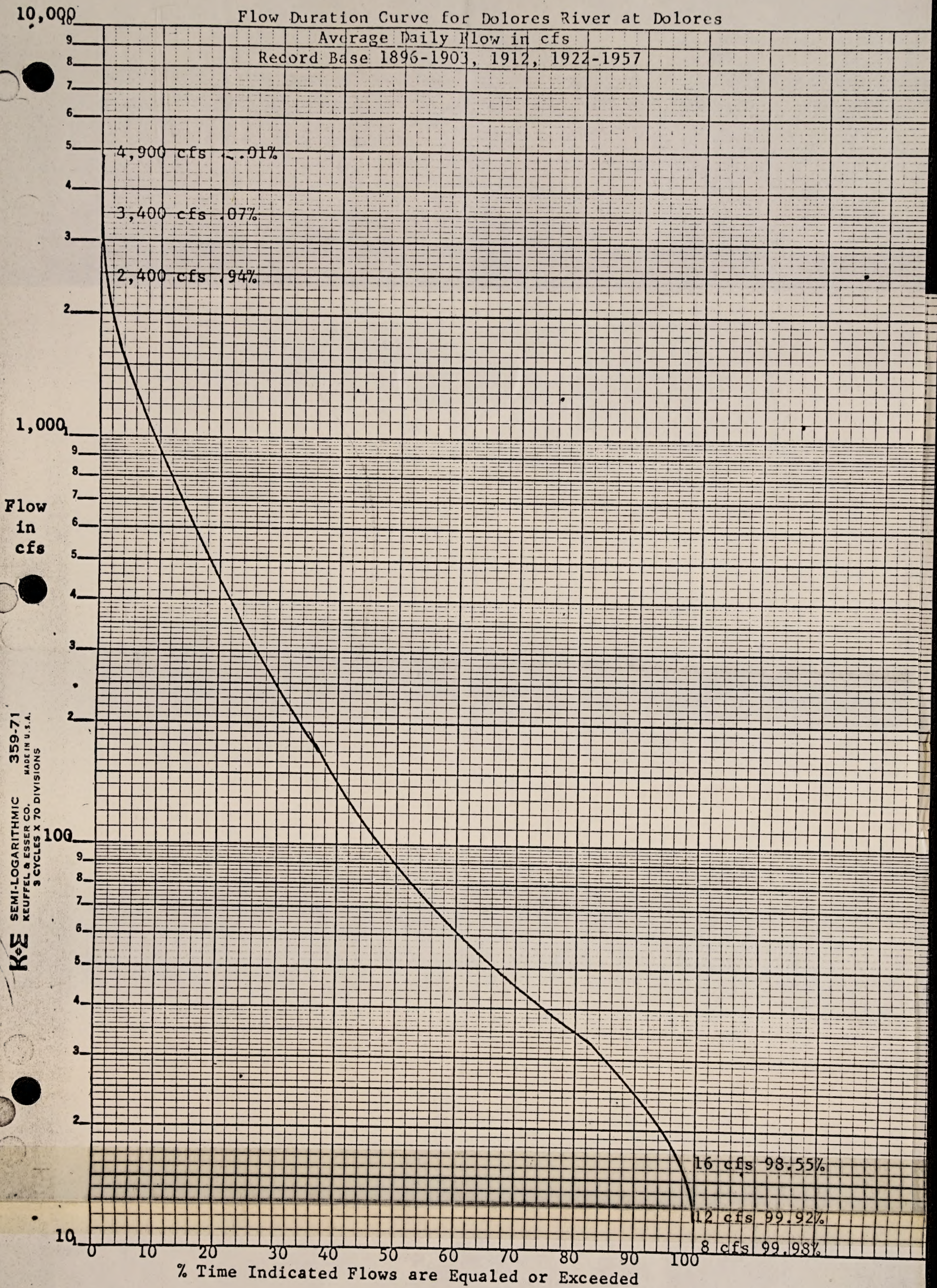
A rank of 75% means for the period of record at Dolores. The annual flow for the year shown was 75% of the record average.

Figure 1

Flow Duration Curve for Dolores River at Dolores

Average Daily Flow in cfs

Record Base 1896-1903, 1912, 1922-1957



KE SEMI-LOGARITHMIC 359-71
KEUFFEL & ESSER CO. MADE IN U.S.A.
3 CYCLES X 70 DIVISIONS

Time Indicated		Flows are Equalled or Exceeded	
Time	Flows	Time	Flows
10:00	100	10:00	100
10:05	100	10:05	100
10:10	100	10:10	100
10:15	100	10:15	100
10:20	100	10:20	100
10:25	100	10:25	100
10:30	100	10:30	100
10:35	100	10:35	100
10:40	100	10:40	100
10:45	100	10:45	100
10:50	100	10:50	100
10:55	100	10:55	100
11:00	100	11:00	100
11:05	100	11:05	100
11:10	100	11:10	100
11:15	100	11:15	100
11:20	100	11:20	100
11:25	100	11:25	100
11:30	100	11:30	100
11:35	100	11:35	100
11:40	100	11:40	100
11:45	100	11:45	100
11:50	100	11:50	100
11:55	100	11:55	100
12:00	100	12:00	100
12:05	100	12:05	100
12:10	100	12:10	100
12:15	100	12:15	100
12:20	100	12:20	100
12:25	100	12:25	100
12:30	100	12:30	100
12:35	100	12:35	100
12:40	100	12:40	100
12:45	100	12:45	100
12:50	100	12:50	100
12:55	100	12:55	100
13:00	100	13:00	100
13:05	100	13:05	100
13:10	100	13:10	100
13:15	100	13:15	100
13:20	100	13:20	100
13:25	100	13:25	100
13:30	100	13:30	100
13:35	100	13:35	100
13:40	100	13:40	100
13:45	100	13:45	100
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15:15	100	15:15	100
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15:35	100	15:35	100
15:40	100	15:40	100
15:45	100	15:45	100
15:50	100	15:50	100
15:55	100	15:55	100
16:00	100	16:00	100
16:05	100	16:05	100
16:10	100	16:10	100
16:15	100	16:15	100
16:20	100	16:20	100
16:25	100	16:25	100
16:30	100	16:30	100
16:35	100	16:35	100
16:40	100	16:40	100
16:45	100	16:45	100
16:50	100	16:50	100
16:55	100	16:55	100
17:00	100	17:00	100
17:05			

8	cfs	99.98%
---	-----	--------

12	5	99.66	%
----	---	-------	---

Table 2

Comparative Data for Dolores River at Dolores and Dolores River at McPhee

Year	Yearly Mean		Momentary Maximum		Minimum Day	
	Dolores R @ Dolores	Dolores R @ McPhee	Dolores R @ Dolores	Dolores R @ McPhee	Dolores R @ Dolores	Dolores R @ McPhee
	cfs	cfs	cfs	cfs	cfs	cfs
1941	721	767	8070	8430	40.0	5.7
1942	790	847	4780	8650	66.0	2.6
1943	448	362	3980	4060	36.0	2.6
1944	617	612	5670	7540	40.0	2.7
1945	452	374	3770	5450	30.0	2.0
1946	298	130	2720	1910	18.0	1.6
1947	436	278	3160	2870	35.0	2.4
1948	536	444	5040	4560	48.0	1.8
1949	522	443	8140	7530	22.0	.6
1950	322	187	2040	2320	31.0	1.3

Irrigation diversion for Narraguinnep Reservoir is 1.33 miles downstream from the gaging station at Dolores. The amount of water diverted from the Dolores River varies with carry over storage at Narraguinnep Reservoir and season of the year. The minimum day flows shown for the McPhee site will occur in late summer or early fall, and the diversion all but dries up the section of the river between the point of diversion to the McPhee gage site.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
SAN JUAN NATIONAL FOREST
P. O. Box 341
Durango, Colorado 81301

IN REPLY REFER TO
2510

June 6, 1972

227

June 1972

San Juan National Forest

Mr. Brent Jensen
Area Manager
San Miguel Resource Area
Bureau of Land Management
Montrose, Colorado 81401

Dear Brent:

We were quite impressed with your Dolores River report and hesitate changing anything. However, there are some questions we have which we would like you to consider.

✓ Page 2 - The railroad did not travel the entire river canyon, only from Dolores to Lizard Head. This was our misstatement - sorry.

✓ Page 10 - We understand the Bureau only planned to purchase private lands for fishing if the "Forks" reservoir were approved. This is very unlikely, in our opinion.

✓ Page 10 - Below McPhee is not where the desert portion begins. The river goes through some quality Ponderosa pine sites before it becomes desert.

Page 10 - Bradfield Ranch is now Mark Elkins Ranch. Mr. Elkins' attitude is not one of making the area a popular launching site.

✓ Page 11 - We disagree with the last sentence -- "... they offer one of the very few true wilderness experiences left in our country ...". A wilderness experience means so many different things to different people that we hate to see it limited in this respect.

✓ Page 14 - Pollution in the form of sedimentation occurs throughout the length of the river. In view of the way the entire report is written, perhaps we should not be so specific about the upper portion. We've made the suggested changes in the report.

✓ Page 21 - In addition to the West Fork proposal, a reservoir at Plateau Creek was proposed. In our opinion, neither of these will occur. We suggest eliminating the last paragraph.



UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
WASHINGTON, D. C. 20250
June 27, 1951



Mr. Earl J. Brown
Bureau of Plant Industry
U. S. Department of Agriculture
Washington, D. C. 20250
Dear Sir:

We were quite interested with your letter of June 27, 1951, regarding the possibility of having a new variety of cotton developed. We would like you to consider.

Page 2 - The enclosed and our report the entire story covered. We have been to the field. This was our first attempt - sorry.

Page 3 - We understand the reason why plant is not being made for planting in the field. The reason is that it is very difficult to get the plant.

Page 4 - When we have in the field the plant is not being made for planting in the field. The reason is that it is very difficult to get the plant.

Page 5 - Enclosed is our report on the plant. We have been to the field. This was our first attempt - sorry.

Page 6 - We discuss with the plant. We have been to the field. This was our first attempt - sorry.

Page 7 - We discuss with the plant. We have been to the field. This was our first attempt - sorry.

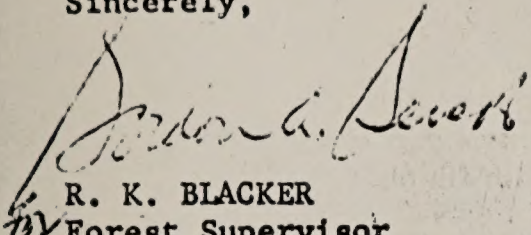
Page 8 - In addition to the above report, a report of the plant. We have been to the field. This was our first attempt - sorry.



Page 23 - We question the validity of the demand exceeding the supply. We have seen no one turned away nor the river too crowded.

Thank you for the opportunity of expressing our thoughts.

Sincerely,



R. K. BLACKER

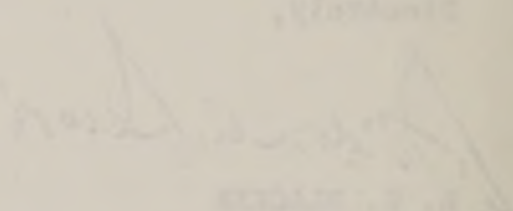
for Forest Supervisor

Enclosure

Page 12 - In question the value of the goods is not stated. It has been assumed that the value is \$100.00.

Thank you for the opportunity to discuss the problem.

Sincerely,


J. E. MILLER
District Supervisor

Enclosure

United States Department of the Interior
BUREAU OF GEOLOGICAL SURVEY
WASHINGTON, D. C.

APPENDIX B

Memo to District Manager, Montrose District, BLM

Page 2

Our final recommendation is that the report expand its discussion of the free-flowing values associated with the Dolores. This is the most important aspect of the report and thus should receive the greatest emphasis. This is particularly true of the upper section because as now described, it does not seem worthy of 5(d) designation. It appears to have no particularly unique values which would warrant its inclusion in the National System.

We hope these general comments when coordinated with the more detailed comments on the xerox copy will be helpful in preparing your first 5(d) report. If we can be of any further assistance, please let us know.

Alan O'Neill
for Maurice D. Arnold

Enclosure

APPENDIX C

PLAN FORMULATION
MEETING
DOLORES PROJECT, COLORADO
DURANGO, COLORADO
April 25-27, 1972

THIS DOCUMENT
CONTAINS
UNCLASSIFIED INFORMATION
DATE 03-27-2012 BY 60322

SCHEDULE

* * * *

Tuesday, April 25th

8:00 AM Meet at Holiday Inn, 800 Truck Bypass, Durango, Colo.
8:00 AM Objective --- E. K. Wiscombe
8:30 AM Field Trip Briefing -- R. H. Tyner
9:00 AM Start Field Trip

FIELD TRIP

Wednesday, April 26th

8:00 AM Field Trip Review
Briefing of the day's schedule--R. H. Tyner
9:00 AM Alternative Plans and discussion of basic data--
D. E. Clay
9:30 AM Reservoir Capabilities and Unit Costs of Storage--
J. E. Gregg
10:00 AM Stream Flow Records, Historical Data Review and
Boating Potential--W. E. Cook and R. H. Tyner

Break
10:30 AM Work Group Assignments

Noon
4:30 PM Adjourn

Thursday, April 27th

8:00 AM Select Project Plan-Team effort
3:30 PM Adjourn

AGENCIES REQUESTED TO PARTICIPATE
 PLAN FORMULATION MEETING OF DOLORES PROJECT
 Durango, Colorado, April 25-27, 1972
 * * * * *

<u>REPRESENTATIVE</u>	<u>AGENCY</u>
Ken Krabbenhoft	National Park Service
Jim O'Shea	National Park Service
Clark D. Johnson	Bureau of Sport Fisheries & Wildlife
Don Smith	Colorado Game, Fish and Parks
Ivan Wescott	Colorado Game, Fish and Parks
John Tucker	Environmental Protection Agency
Lee McQuivey	Corps of Engineers
Rod Blacker	Forest Service
Paul Senteney	Forest Service
Paul Roth	Forest Service
Allan O'Neill	Bureau of Outdoor Recreation
Roger Maxwell	Bureau of Outdoor Recreation
Bob Anderson	Bureau of Land Management
Brent Jensen	Bureau of Land Management

BUREAU OF RECLAMATION
 PARTICIPANTS

	<u>REGION 4, SALT LAKE CITY</u>
Paul Willmore	Regional Planning Officer
Harold Sersland	Regional Environmentalist
	<u>DURANGO PROJECTS OFFICE</u>
E. K. Wiscombe	Project Manager
R. H. Tyner	Chief, Planning Division
J. E. Gregg	Chief, Engineering Branch
D. E. Clay	Chief, Plan Formulation Branch
W. E. Cook	Chief, Hydrology Branch
W. S. Wilkins	Environmental Specialist

9661

National Park Service

What are titles of these men?

Ken Krabbenhoft - Regional Chief of Federal Assistance
Jim O'Shea - Landscape Architect

Midwest Regional Office
Omaha, Nebraska

Wetland Plant Survey

1981-82

Wetland Plant Survey
1981-82

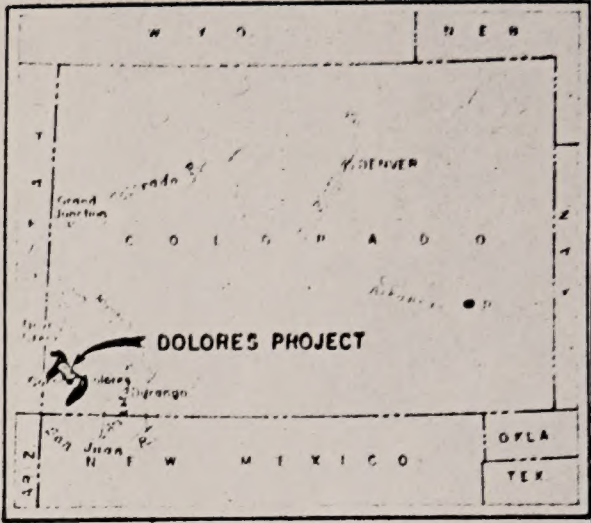
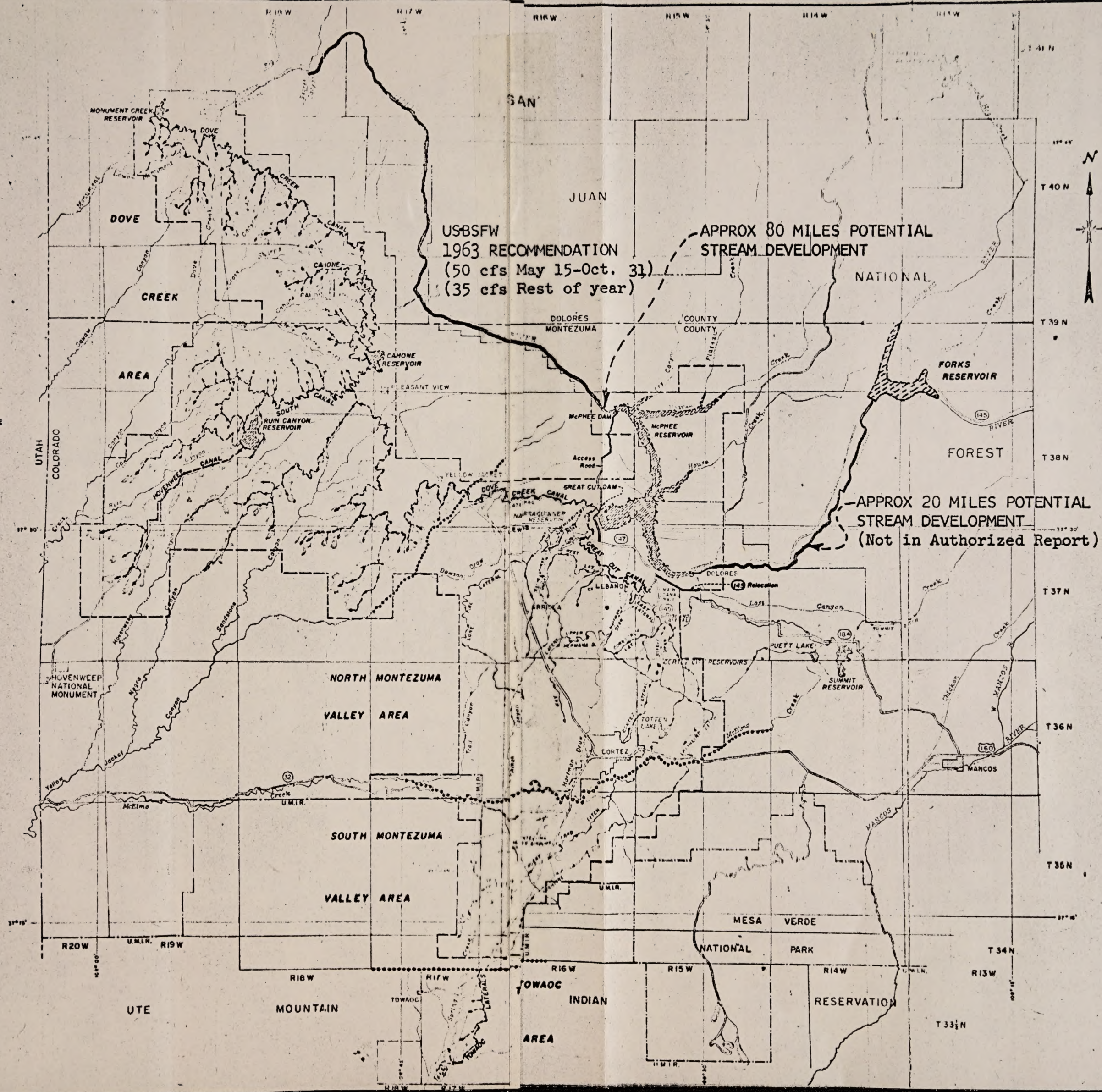
Wetland Plant Survey
1981-82

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PROJECT ACREAGE (ACRES)	
FULL SERVICE	32,340
SUPPLEMENTAL SERVICE	28,660
TOTAL	61,000

PROJECT WATER SUPPLY (ACRE-FEET)	
IRRIGATION	120,800
MUNICIPAL & INDUSTRIAL	
DOVE CREEK	1,200
CORTEZ	4,900
TOTAL	126,900



- LEGEND**
- Supplemental Irrigation Service Lands
 - Full Irrigation Service Lands
 - Proposed Reservoir
 - Proposed Canal
 - Proposed Lateral
 - Area Boundary
 - National Forest Boundary
 - Dolores Conservancy District Boundary
 - Potential Stream Development

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGION 4

DOLORES PROJECT
COLORADO
GENERAL MAP
MAP NO. 71-406-1190

SCALE OF MILES
0 1 2 3 4 5 6 7 8

OCTOBER, 1961

ALTERNATIVE PLANS DESCRIPTION

Authorized Plan - The plan is described in detail in House Document 412. Updated plan formulation summary sheets are attached to the back of this brochure.

Forks Reservoir Site Alternatives - A quadrangle map view of the Forks Site is shown on page 4. The water surface elevation shown is 7,600, however, generally, a plan selected would probably show a lower elevation. The combination of McPhee and Forks Reservoirs provides several alternatives that could significantly expand the fishery, wildlife, recreation, water quality and flood control potential of the Dolores Project. Area and capacity versus elevation curves for the McPhee and Forks Sites are shown on pages 5 and 6. The two plans that need a more complete environmental and corollary effects evaluation are described as follows:

PLAN I

Forks and McPhee reservoir sites with emphasis on developing a stream fishery below McPhee dam site.

Irrigation: Municipal and Industrial water demands are same as in the Authorized Plan.

Recreation: Fisheries, Wildlife, Flood Control, Water Quality and all other project effects need evaluation by the appropriate agency.

Project water shortages will be pro-rated equally among all purposes except M&I, which will be provided a full supply.

Historical stream flows at Dolores and below McPhee damsite are shown on pages 7 and 8.

Cost estimates for stream fishery development were based on two alternative releases, (May 15-Oct. 31 and rest of year).

1. 50 & 35 cfs
2. 20 & 10 cfs

Storage costs to provide these releases at the Forks site are summarized on pages 11 and 13.

McPhee and Forks Site reservoir operations are summarized on a sketch, pages 9, 10 and 12.

Disadvantages of adding the Forks Site would be:

1. Inundation of approximately ten miles of stream fishery.
2. Inundation of Forest Service Campground and several summer homes.
3. Inundation of private ski area.
4. Required road relocation through scenic area around reservoir.
5. Other disadvantages (list below and estimate monetary value if possible)

Classification of nations the world over

1. Nations of superiorly low state of culture
2. Nations of lower culture (Germany and others)
3. Nations of middle culture
4. Nations of high culture
5. Nations of high culture through social state
6. Nations of high culture through social state
7. Nations of high culture through social state
8. Nations of high culture through social state

PLAN II

Forks and McPhee reservoir sites with a powerplant at the Forks Site and pumping at the Great Cut to Elev. 6945. Emphasis is to stabilize McPhee to minimize pumping and maximize McPhee and Forks Site recreation potentials.

McPhee Reservoir operation is summarized on a sketch, page 14. The powerplant at Forks Site would require a substantial inactive pool and would thus maximize recreation opportunities there also. Forks Site reservoir operation is summarized for this plan on a sketch, page 15. Forks Site reservoir costs are summarized on page 16.

Stream fishery potentials would involve about one hundred miles; twenty miles between the two reservoirs and about 80 miles downstream from McPhee damsite to about the Dove Creek municipal pumping plant. (See General Map) This does not preclude a possible significant additional stream fishery opportunity further downstream.

Releases through the powerplant would be about uniform at 310 second-feet.

Releases below McPhee would be 20 cfs May 15 thru Oct. 31 and 10 cfs through the rest of the year. Shortages would be pro-rated equally between fisheries and irrigation.

Disadvantages of this plan are the same as in Plan I, plus:

1. Transmission Line (345 KV) from Forks to Great Cut.
2. Other disadvantages (list below and estimate monetary value if possible).



Oak Knolls Reservoir

STONER

Stoner Point No. 2 Reservoir

Stoner Point Reservoir

Stoner Point No. 3 Reservoir

Taylor Mesa Lake

Oak Knolls Reservoir

SURFACE AREA APPROX 2000 AC

7600 EL

SAN

JUAN



ELEVATION IN FEET

0 50 100 150 200 250 300

7050

7000

6950

6900

6850

6800

6750

6700

6650

Streambed elevation at damsite 6665

0 5 10 15 20 25

CAPACITY - THOUSANDS OF ACRE-FeET

300 350 400 450 500 550 600

650 700 750 800 850

CAPACITY

AREA

NOTE:-

PREPARED FROM AERIAL TOPOGRAPHY
BY JACK AMMAN, SCALE 1"=1,000'
DRAWINGS 71-400-7, -8 & -9

AREA - HUNDREDS OF ACRES

30 35 40 45 50 55 60 65 70 75

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
DOLORES PROJECT - COL CHAD

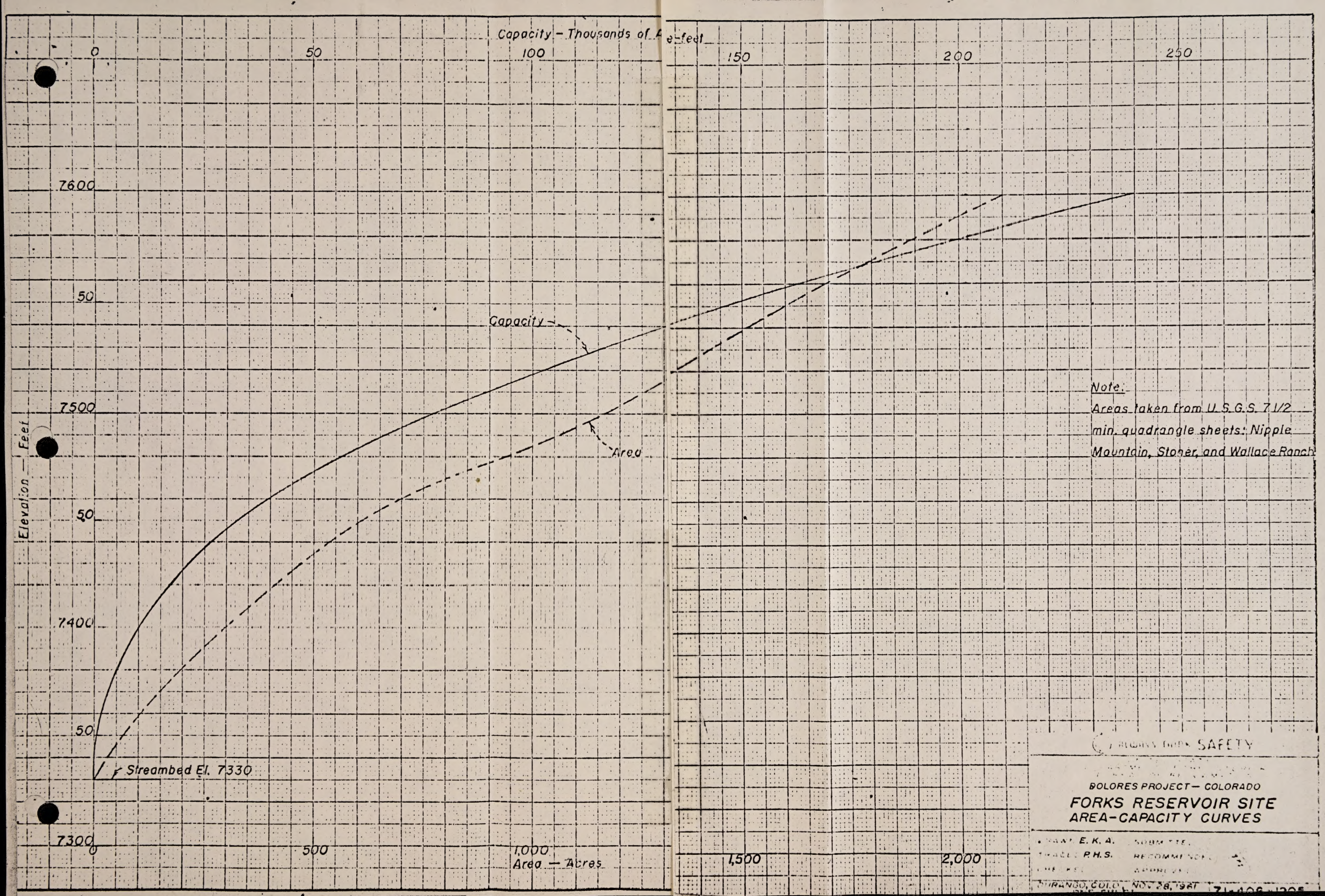
MOPHEE RESERVOIR SITE
AREA-CAPACITY CURVES

DRAWN BY: SUBMITTED:

TRACED: RECOMMENDED:

CHECKED: APPROVED:

DURANGO, COLO. JULY 18, 1955 71-406-347



Historical Flow ~

HYDROGRAPHIC DISCHARGE DATA

Run-off of Dolores River @ McPhee

Unit _____

Drainage Area _____

Sq. Mils _____

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	MEAN
22														
23														
24														
19 25														
26														
27														
28	4.5	4.2	32.0	52.8	101.2	53.0	3.5	0	0.2	1.0	1.0	3.5	256.9	
29	2.9	2.8	5.4	59.5	114.6	71.0	7.2	12.9	19.8	9.3	0	1.2	313.3	
19 30	1.8	2.3	8.1	81.7	59.6	43.9	3.5	13.9	0.4	1.1	1.0	2.1	219.4	
31	2.3	2.6	4.4	6.3	19.1	5.8	0	0	0.2	1.6	1.8	3.7	47.8	
32	3.1	5.2	12.7	170.4	198.3	91.3	10.2	0	0.5	1.0	0.3	2.6	495.6	
33	2.8	1.9	3.5	8.1	34.6	56.5	3.7	0	0.9	1.1	1.3	2.7	117.1	
34	2.3	2.7	4.4	24.9	11.4	1.4	0	0.2	0.6	1.0	0	1.6	50.5	
19 35	1.8	1.8	4.3	43.8	48.4	109.2	8.5	1.9	0.6	1.3	0	1.8	223.4	
36	2.0	2.3	12.9	116.2	83.9	21.2	1.1	4.8	0.3	0.8	0	3.4	242.9	
37	3.2	2.2	5.7	145.5	173.8	32.2	4.1	1.4	0.8	1.6	0	2.1	372.6	
38	2.2	2.3	15.8	167.3	119.3	110.7	11.9	1.4	3.2	4.6	0	3.1	440.2	
1/ 39	2.3	2.1	15.4	65.5	41.5	5.9	0.4	0.6	1.4	0.4	0	1.2	136.7	
1/19 40	1.2	1.9	4.9	46.0	79.3	17.6	0.3	0.3	4.2	7.5	2.3	2.5	167.7	

HYDROGRAPHIC DISCHARGE DATA

Historical Flow ~

Run-off of Dolores River @ McPheeUnit 1000 AF

Drainage Area

Sq. MP

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	MEAN
<u>✓</u> 41	3.2	3.7	16.1	71.1	261.0	132.2	32.4	1.1	16.1	95.1	30.0	13.1	621.5	
<u>✓</u> 42	7.8	3.4	13.4	187.5	158.6	99.7	2.6	0.9	0.4	0.3	0.6	2.1	477.5	
<u>✓</u> 43	2.4	2.5	8.5	116.5	81.2	42.9	1.1	2.4	0.9	0.4	0.2	3.4	265.2	
<u>✓</u> 44	2.8	3.0	3.8	51.2	212.1	141.1	24.8	0.8	0.3	0.6	1.1	2.1	443.7	
<u>✓</u> 1945	2.3	3.1	5.0	61.4	136.4	55.3	2.2	0.9	0.3	0.8	0.9	2.2	270.8	
<u>✓</u> 46	2.6	1.8	2.3	30.0	18.2	33.7	0.8	0.5	0.4	1.0	1.7	2.1	95.6	
<u>✓</u> 47	2.9	3.0	6.1	19.1	95.8	47.4	3.4	11.6	6.2	13.0	5.2	4.5	212.5	
<u>✓</u> 48	3.0	3.0	6.5	99.1	173.1	61.5	2.0	0.7	0.5	0.2	0.7	0.4	300.2	
<u>✓</u> 49	2.2	2.4	4.3	73.0	102.0	112.9	15.4	0.5	0.1	0	0.7	2.4	321.2	
<u>✓</u> 1950	1.9	3.0	3.6	66.2	32.5	23.8	0.6	0.2	0.3	0.2	0.2	1.7	134.2	
<u>✓</u> 51	2.1	2.4	2.1	0.7	25.8	16.9	0.4	0.6	0	0.1	1.1	2.2	54.1	
<u>✓</u> 52	2.7	2.0	3.4	151.8	196.6	146.5	14.0	1.0	1.5	0	1.2	2.3	523.0	
53	2.4	2.4	1.7	33.8	27.3	35.4	0	1.7	0	1.1	1.9	2.2	110.5	
54	2.9	3.5	3.4	14.5	27.1	2.6	0.4	0.4	0.4	1.6	0.5	2.3	59.6	
1955	2.1	2.1	3.1	24.0	47.1	22.3	0	2.2	0.4	1.2	0.9	2.5	109.0	
56	2.6	2.5	12.6	31.2	45.2	21.2	0.1	1.4	0.5	0.9	0.8	1.4	120.9	
57	2.5	2.7	5.0	56.6	106.9	202.9	62.9	23.8	12.7	4.6	6.7	5.1	492.4	
58	4.0	3.4	7.9	137.0	191.1	66.1	1.6	1.3	1.1	1.0	2.5	2.3	419.2	
59	1.9	2.1	2.8	0.4	13.1	2.9	0.1	0.4	0	3.9	3.9	1.7	32.2	
1960	1.9	1.2	11.5	23.1	63.0	56.1	0.6	0.4	0.3	1.0	2.7	2.1	55.6	
<u>✓</u> Actual Gage Records														

Historical Flow ~.

Run-off of Dolores River @ McPhee

Unit

Drainage Area

S. M.

GPO 1974 O-295-740

HYDROGRAPHIC DISCHARGE DATA

Historical flow ~

 of Dolores River at Dolores Unit 1000 AF Drainage Area 556 Sq. Miles

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	Percent MEAN
										7.4	5.6	4.3	-	
22	2.8	4.2	6.2	61.3	222.9	131.5	23.1	11.0	4.8	4.0	3.6	3.8	479.2	
23	3.9	3.8	4.9	38.7	192.4	141.6	45.8	36.7	16.0	9.9	4.6	5.6	503.9	
24	3.6	4.3	5.7	64.5	158.9	65.2	12.0	6.1	3.2	2.6	3.5	2.2	331.8	
1925	2.5	3.8	6.5	57.2	109.8	54.0	15.9	14.7	40.6	14.6	9.9	5.8	335.3	
26	4.6	4.3	9.6	57.6	173.2	176.6	65.1	7.2	4.5	13.5	10.1	6.2	532.5	
27	4.9	4.2	10.2	95.7	147.0	93.5	36.6	15.1	80.6	21.0	15.2	4.6	528.6	
28	4.6	4.6	15.0	44.9	116.8	79.4	18.9	7.6	4.0	4.4	4.6	3.8	308.6	
29	3.2	2.9	5.2	51.3	126.1	92.4	26.7	35.0	31.6	14.1	5.5	2.3	402.3	
1930	1.7	2.3	6.6	62.0	84.9	72.4	18.8	27.6	6.8	5.0	2.9	2.5	293.5	
31	2.5	2.7	4.6	13.6	45.7	31.9	9.0	4.9	5.0	7.2	3.9	3.9	134.9	
32	3.4	5.8	8.6	74.5	175.9	115.9	32.0	15.0	6.8	4.5	2.5	3.0	447.9	
33	3.1	1.9	4.1	13.4	61.0	26.3	19.2	6.2	8.2	6.5	4.0	3.1	217.0	
34	2.5	2.8	4.6	28.1	34.9	6.4	3.4	3.2	2.5	2.2	1.8	2.0	94.4	
1935	1.8	1.7	4.6	31.6	67.1	133.8	32.5	15.9	10.7	6.5	3.2	2.2	311.6	
36	2.1	2.3	8.7	68.5	106.4	49.9	12.8	19.8	8.4	4.7	4.9	3.7	292.2	
37	3.5	2.2	5.4	77.4	168.2	62.1	21.7	7.6	5.1	5.6	3.2	2.5	364.5	
38	2.4	2.4	9.8	86.6	126.1	133.3	32.1	8.8	13.2	8.7	5.2	3.6	432.2	
39	2.8	2.6	10.3	43.1	70.7	27.5	5.4	3.9	8.2	3.6	2.9	1.6	182.6	
1940	1.6	2.3	5.4	36.6	91.9	41.2	10.8	8.5	9.0	12.4	5.1	3.2	229.0	

Runoff at Forts Kerrin site is approximately
94% of the Dolores gage at Dolores

HYDROGRAPHIC DISCHARGE DATA

Historical Flow

at Dolores River at Dolores Unit 1000 AF Drainage Area 556 Sq. Miles

R	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	Percent MEAN
1941	2.9	3.4	8.7	29.5	209.0	149.9	59.7	15.7	22.2	76.7	27.0	9.6	614.3	
42	6.6	4.3	9.5	116.3	157.7	115.3	25.7	16.2	6.8	4.8	3.5	2.8	470.0	
43	2.5	2.6	7.1	78.8	106.3	71.5	18.7	17.2	9.0	7.0	4.9	3.7	329.3	
44	3.1	2.6	4.1	25.5	164.2	159.9	47.1	16.0	10.1	5.1	3.7	2.7	444.1	
1945	2.6	2.9	4.9	32.0	127.4	86.9	25.2	15.3	8.9	6.3	3.2	2.1	327.7	
46	2.1	2.4	5.2	37.7	52.3	66.6	16.3	13.4	8.1	6.9	5.3	3.7	220.0	
47	2.7	2.7	6.4	27.5	121.0	77.3	26.4	21.4	14.4	16.4	7.4	4.6	328.2	
48	3.9	3.5	5.3	68.6	140.5	89.2	27.7	14.7	6.9	3.8	2.8	2.9	369.8	
49	2.6	2.6	4.8	47.0	105.9	132.8	42.2	16.1	8.9	6.1	4.1	2.8	381.9	
1950	2.8	3.5	6.7	56.7	64.6	55.0	15.9	9.8	5.1	4.0	2.5	2.6	229.2	
51	2.2	2.1	4.4	10.6	49.2	42.6	9.5	6.4	2.4	2.9	2.4	2.4	137.1	
52	2.6	2.1	3.4	76.7	167.2	165.4	40.6	16.8	10.3	4.0	2.6	2.8	494.5	
53	2.6	2.5	4.9	23.1	51.1	63.5	19.1	13.3	5.6	3.9	3.7	3.2	196.5	
54	2.2	2.3	3.4	32.1	56.5	19.6	11.5	8.8	8.4	9.7	3.5	2.4	160.4	
1955	2.2	2.2	3.8	17.8	71.2	51.2	14.3	18.1	6.6	3.5	2.1	2.8	195.8	
55	2.9	2.6	9.6	31.1	74.4	44.4	11.9	8.9	3.0	1.7	1.9	1.6	194.0	
57	2.7	2.8	4.2	29.8	100.3	206.5	91.6	39.2	22.1	12.4	8.0	5.3	524.9	
58	4.2	3.6	6.4	69.9	176.9	94.3	20.4	14.0	8.2	4.2	3.0	2.3	407.4	
59	2.0	2.2	3.7	10.8	40.8	26.1	7.6	8.9	4.7	5.3	4.5	2.1	118.7	
1960	2.0	1.7	8.8	63.2	85.0	23.7	15.0	8.2	4.2	4.6	3.2	2.4	282.0	

HYDROGRAPHIC DISCHARGE DATA

Historical Flow ~

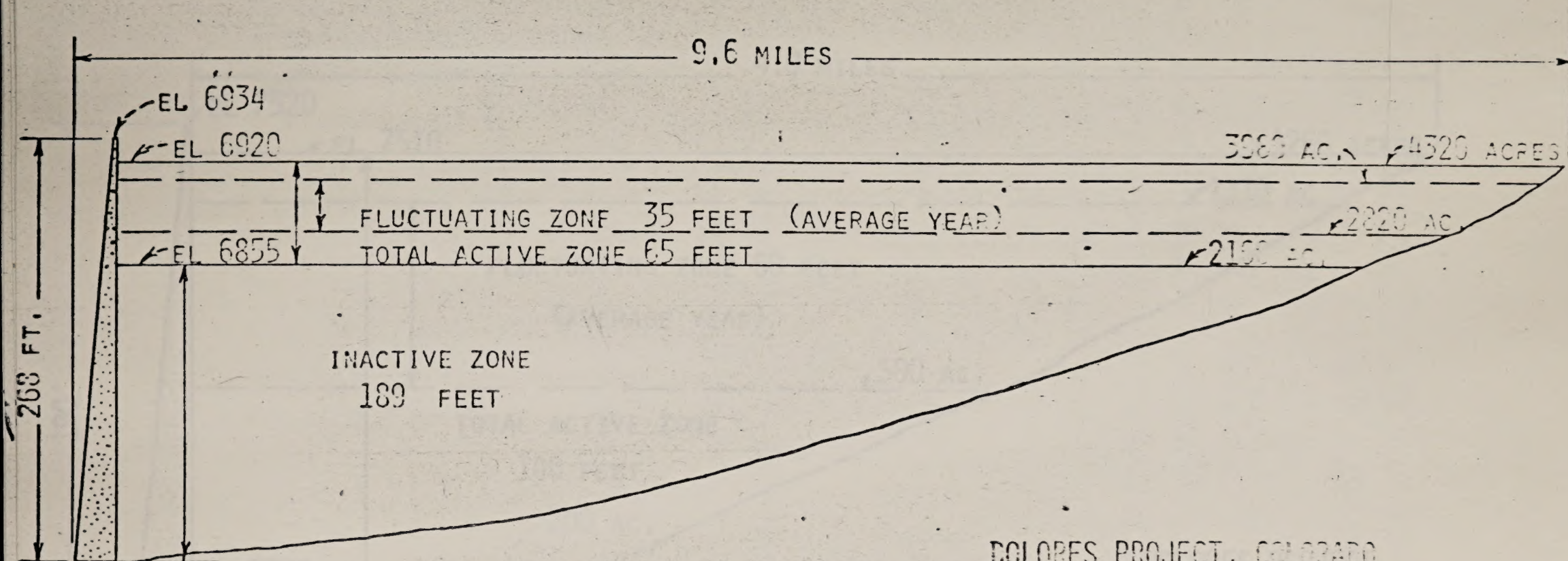
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cont of Dolores River at Dolores

Unit 1000 AFDrainage Area 556

Sq. Miles

[illegible]



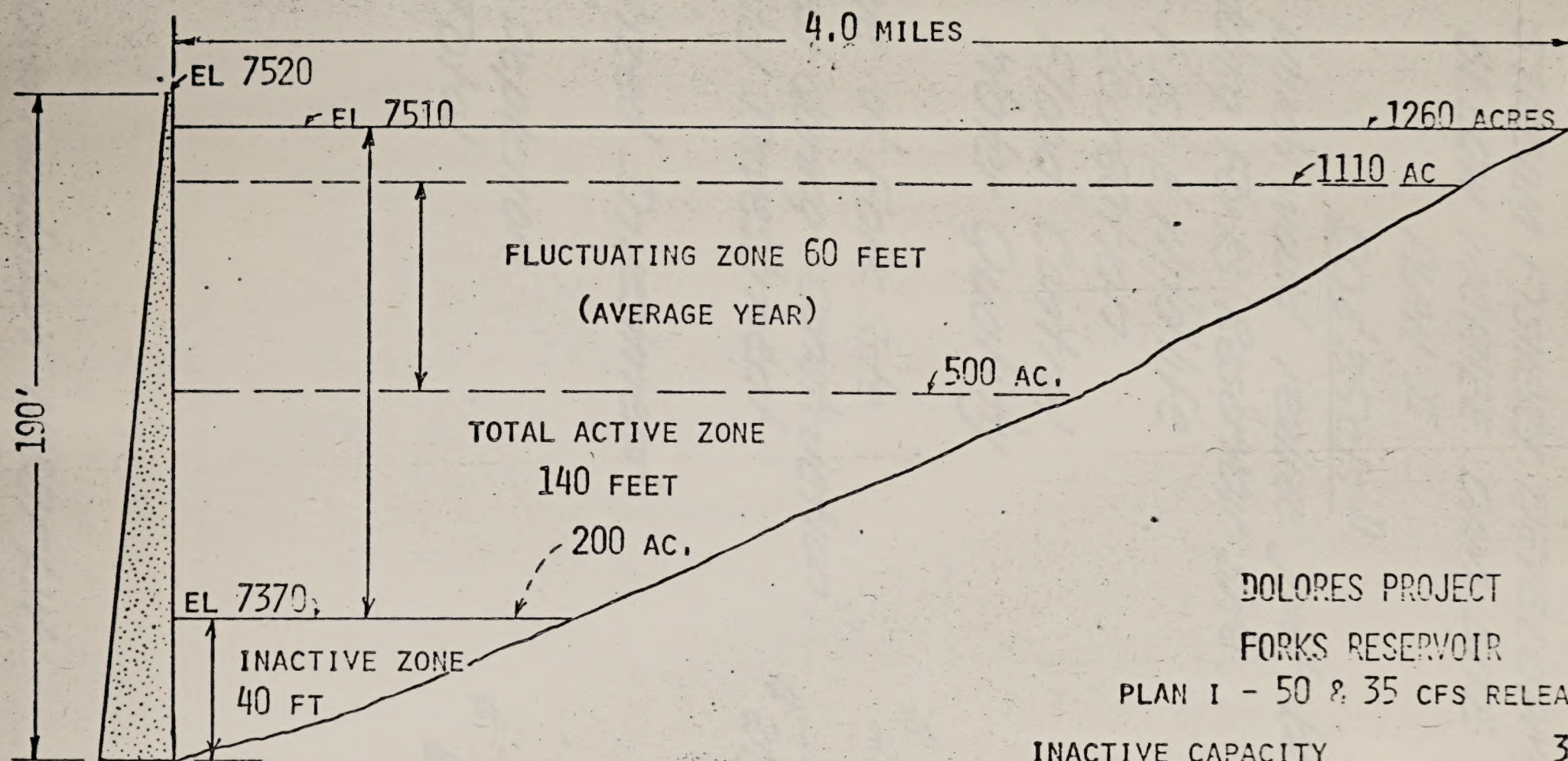
DOLORES PROJECT, COLORADO

McPHEE RESERVOIR

AUTHORIZED PLAN

INACTIVE CAPACITY	152,500 AC.FT.
ACTIVE CAPACITY	211,500 AC.FT.
TOTAL CAPACITY	364,000 AC.FT.
EST. ANNUAL VISITOR DAYS	200,000 //

// Estimate provided by National Park Service, as revised



DOLORES PROJECT

FORKS RESERVOIR

PLAN I - 50 & 35 CFS RELEASES

INACTIVE CAPACITY	3,000 AC.FT.
ACTIVE CAPACITY	87,000 AC.FT.
TOTAL CAPACITY	90,000 AC.FT.
EST ANNUAL VISITOR DAYS	1/

1/ APPROPRIATE AGENCY ESTIMATE NEEDED

STREAM FISHERY DEVELOPMENT
BELOW MCPHEE DAM SITE

PLAN I

50 & 35 cfs 11

Purposes which would realize joint benefits
from adding Forks Reservoir site.

- Fish & Wildlife
- Recreation
- Flood Control
- Water Quality

Storage at Fork Site

Interest during construction

Total Investment

COSTS

\$ 23,000,000

1,437,000

\$ 24,437,000

Amortized Investment

800,600

OM&R

22,100

CRSP Depletion

2,300

Total

\$ 825,000

11 Recommendation USBBF&W

STREAM FLOWERY DEVELOPMENT

Below Market Price Site

Case 1

503,250.00

Expenses which would realize unit benefits from existing Park Recreation site.

- Fish & Wildlife
- Recreation
- Flood Control
- Water Quality

Costs

\$23,000.00

1,427.00

\$24,427.00

Storage at Park Site

Interest during Construction

Total Investment

Amortized Investment

Over

Cost Repayment

Total

\$24,427.00

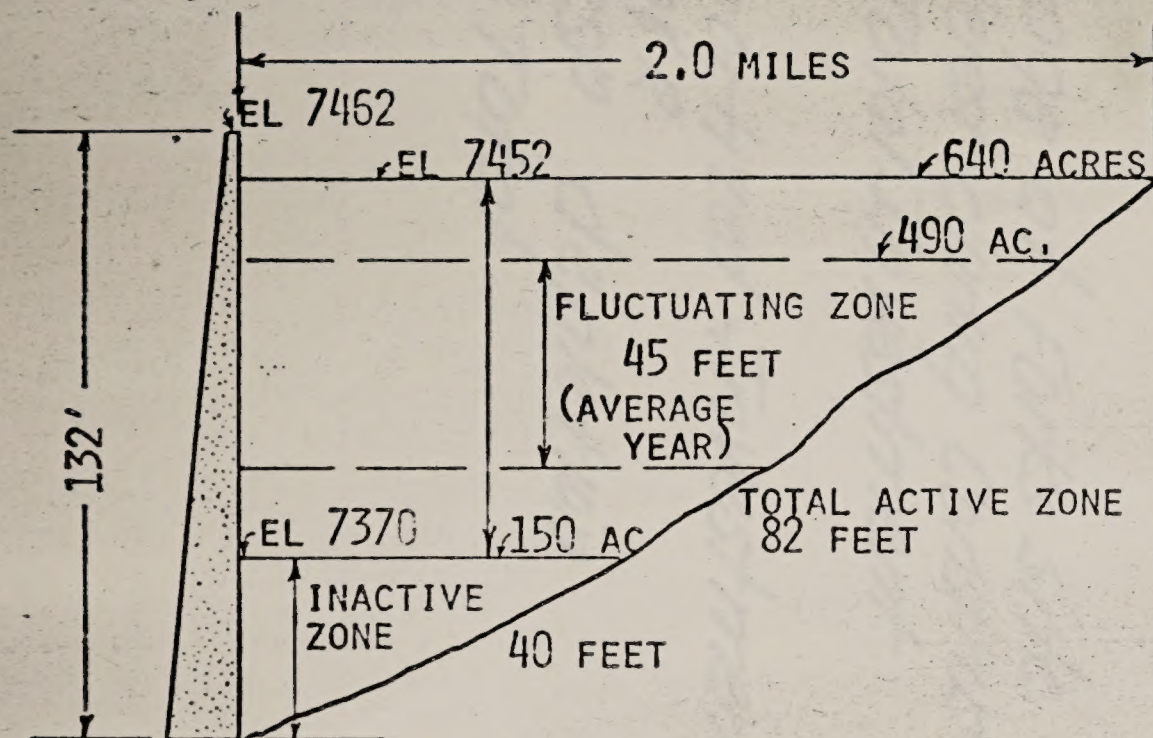
20.40

2.300

26,727.00

26,727.00

1 Recommendation US\$24,427.00



DOLORES PROJECT FORKS RESERVOIR

PLAN I - 20 & 10 CFS RELEASES

INACTIVE CAPACITY	3,000 AC.FT.
ACTIVE CAPACITY	32,000 AC.FT.
TOTAL CAPACITY	35,000 AC.FT.
EST ANNUAL VISITOR DAYS	1/

1/ APPROPRIATE AGENCY ESTIMATE NEEDED

STREAM FISHERY DEVELOPMENT
BELOW MCPHIE DAM SITE

PLANT

20 & 10 CFS

Purposes which would realize joint benefits
from adding the Forks Site.

- Fish & Wildlife
- Recreation
- Flood Control
- Water Quality

	<u>COST</u>
Storage at Forks site	\$ 13,000,000
Interest during Construction	<u>813,000</u>
Total Investment	\$ 13,813,000
Amortized Investment	\$ 452,500
OM&R	20,000
CRSP depletion	<u>1,500</u>
Total	<u><u>474,000</u></u>

STEVEN FAIRLEY DEVELOPMENT
 BELOW MAPLE DOW SITE
 PLANT
20 & 10 06

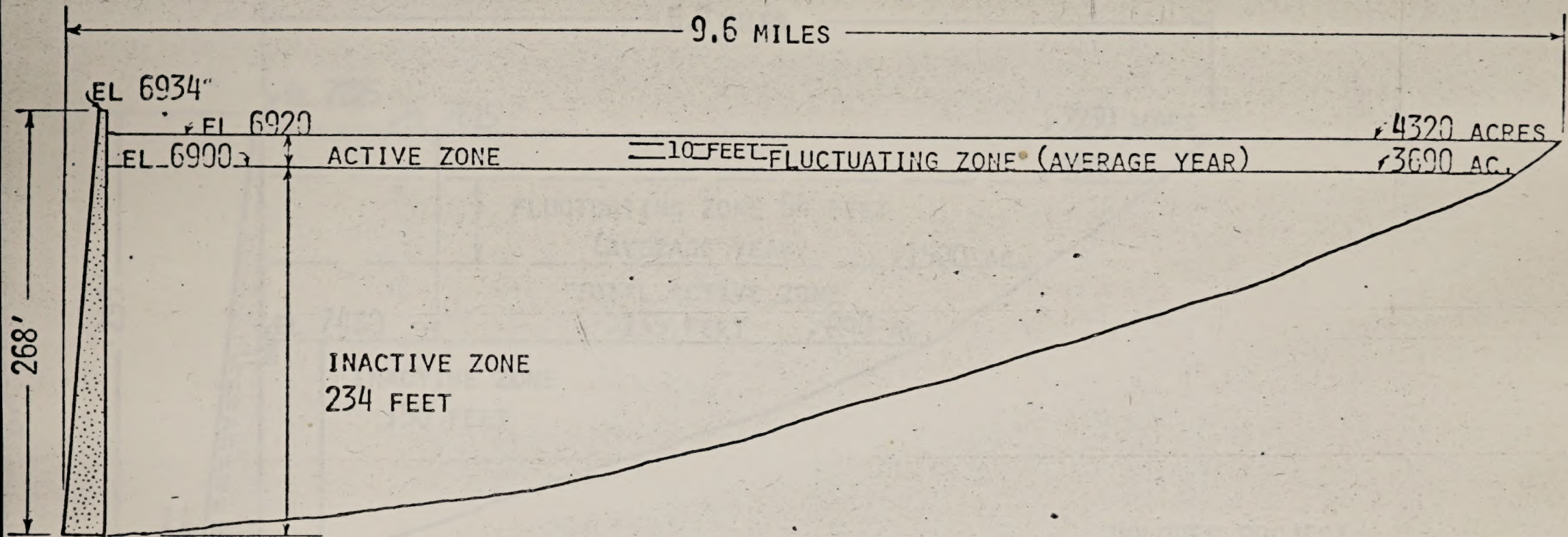
Purposes which would realize joint benefits
 from adding the Fork Site
 Fish & Wildlife
 Recreation
 Flood Control
 Water Quality

Cost
 \$ 13,000,000
\$ 12,000,000
 \$ 1,000,000

Storage of Fork Site
 Initial Cleanup Construction
 Total Investment

\$ 425,000
 10,000
1,500
\$ 470,000

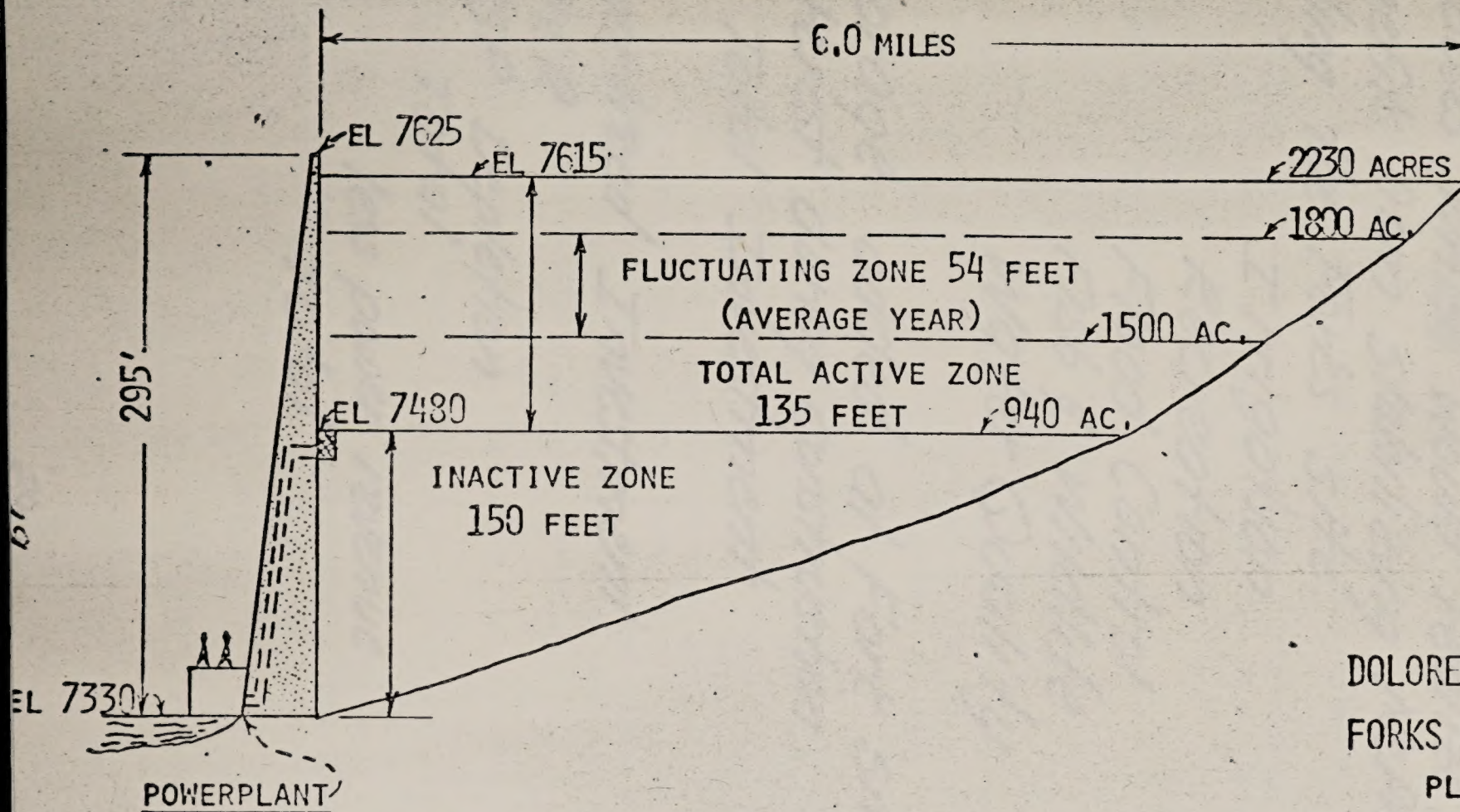
Amortized Investment
 Only
 Gross Depreciation
 Total



DOLORS PROJECT
McPHEE RESERVOIR

STABILIZED POOL

INACTIVE CAPACITY	322,000 AC.FT.
ACTIVE CAPACITY	42,000 AC.FT.
TOTAL CAPACITY	364,000 AC.FT.
EST. ANNUAL VISITOR DAYS	



DOLORS PROJECT
FORKS RESERVOIR
PLAN II

AVG. RELEASE 310 CFS
CAPACITY 4200 KW

INACTIVE CAPACITY	56,500 AC.FT.
ACTIVE CAPACITY	213,500 AC.FT.
TOTAL CAPACITY	270,000 AC.FT.
EST. ANNUAL VISITOR DAYS	1/

1/ APPROPRIATE AGENCY ESTIMATE NEEDED

STABILIZE MCPHEE RESERVOIR AND DEVELOPE STREAM FISHERIES PLAN II

Purposes which would realize joint
benefits from stabilizing McPhee and
adding the Forks site.

Irrigation
Recreation
Flood Control
Fish & Wildlife
Water Quality

	<u>COST</u>
Storage added at Fork site	\$ 39,000,000
Interest during construction	\$ <u>2,438,000</u>
Total Investment	\$ 41,438,000

Amortized Investment	\$ 1,357,500
OM&R	25,000
CRSP Depletion	<u>4,600</u>
Total	\$ <u>1,387,100</u>
less power revenue	<u>- 120,800</u>
Total	<u><u>\$ 1,266,300</u></u>

STANBISLE INDIAN RESERVATION AND CLEVELAND STRONG FOLLOWS RENTAL

Papers which would realize joint
benefits from stabilizing water and
adjoining the Fort site.

Investigation
Excavation
Flood Control
Fish & Wildlife
Water Quality

Storage added at Fort site
Interest on investment
Total Investment

Summarized Investment
Costs
Crest Deposits
Total
Less power revenue
Total

PLAN FORMULATION
SUMMARY SHEETS
January 1972

DOLORES PROJECT, COLORADO

LOCATION: Dolores and Montezuma Counties in Southwestern Colorado of the Upper Colorado River Basin

AUTHORIZATION: Construction, Operation and Maintenance of the Dolores Project Was Authorized Under Title V of Public Law 90-357, September 30, 1968

SYNOPSIS OF AUTHORIZED PLAN:

The project will develop unused waters of the Dolores River for irrigation of full and supplemental service lands in the San Juan River drainage. Municipal and industrial water deliveries are planned for Cortez, and Dove Creek, Colorado. Project operations and specific facilities will be provided to develop significant corollary flood control, recreation, fish and wildlife, and water quality benefits.

- Primary regulation of Dolores River flows will be provided at the McPhee Reservoir site. Developed and re-regulated water will be diverted through the Great Cut Dike to project and non-project conveyance facilities. Three small reservoirs located along the Dove Creek Canal alignment will provide additional project storage and allow for reductions in project conveyance facilities sizes. Some additional benefits from recreation and fish and wildlife opportunities will be realized. Project laterals and drains will be constructed for service and protection of project lands.

Initial project water deliveries are scheduled for 1978.

ADMINISTRATION:

The Dolores Water Conservancy District will be the main administrative and contracting agency for the Dolores Project. The Indians' interests will be represented by the Ute Mountain Indian Tribe.

WAS FORMATION
BUREAU OF
1978

WAS FORMATION

LOCATION: Bolson and Montezuma Counties in southwestern Colorado of the Upper Colorado River Basin

AVAILABILITY: Construction, operation and maintenance of the Bolson Project was authorized under Title V of Public Law 92-145, September 30, 1968

SYNOPSIS OF AVAILABILITY PLAN

The project will develop power and water for irrigation of 100,000 acres of land in the San Juan River drainage. The project will also develop and operate the Bolson Dam and Bolson Reservoir. The project will also develop and operate the Bolson Dam and Bolson Reservoir. The project will also develop and operate the Bolson Dam and Bolson Reservoir.

Primary regulation of Bolson River flows will be provided at the Bolson Reservoir. The reservoir will be a concrete gravity dam. The reservoir will be a concrete gravity dam. The reservoir will be a concrete gravity dam. The reservoir will be a concrete gravity dam. The reservoir will be a concrete gravity dam.

Initial project water deliveries are scheduled for 1978.

ADMINISTRATIVE

The Bolson Water Conservancy District will be the main administrative and controlling agency for the Bolson Project. The District's interests will be represented by the Ute Mountain Indian Tribe.

IRRIGATION:

Project Water Supply at farm headgates (acre-feet)	120,800
Service area (acres)	
Full Service	32,340
Supplemental Service	28,660
Total	61,000

Irrigators' Annual Payment Ability

Total (approx)	\$362,400
Per acre-foot of project supply at farm headgates--(approx)	\$3.00

Average irrigation project costs

Per acre of land (approx)	\$870
Per acre-foot of project supply (approx)	\$440

RECREATION:

McPhee Reservoir	Elevation (feet)	Area (Acres)
Normal High Water Surface	6920.0	4,320
Minimum Water Surface	6855.0	2,070
Average Low Pool (May-Sept)	6894.0	3,520

Estimated Annual Visitors	200,000
Net Recreational Value	\$157,500

Ruin Canyon Reservoir	Elevation (feet)	Area (Acres)
Normal High Water Surface	6761.0	395
Minimum Water Surface	6716.5	163
Average Low Pool (May-Sept)	6747.0	310

Estimated Annual Visitors	10,000
Net Recreational Value	\$10,700

INVESTMENT

Investment in Plant and Equipment	100,000
Investment in Land	50,000
Investment in Building	25,000
Investment in Furniture and Fixtures	10,000
Investment in Inventory	5,000
Investment in Cash	2,000
Total	192,000

Investment in Annual Payment Activity

Investment in Annual Payment Activity	100,000
Investment in Annual Payment Activity	50,000
Investment in Annual Payment Activity	25,000
Investment in Annual Payment Activity	10,000
Investment in Annual Payment Activity	5,000
Investment in Annual Payment Activity	2,000
Total	192,000

INVESTMENT

Investment in Plant and Equipment	100,000
Investment in Land	50,000
Investment in Building	25,000
Investment in Furniture and Fixtures	10,000
Investment in Inventory	5,000
Investment in Cash	2,000
Total	192,000

	Elevation (feet)	Area (Acres)
Cahone Reservoir		
Normal High Water Surface	6822.5	225
Minimum Water Surface	6790.0	37
Average Low Pool (May-Sept)	6803.0	100
Estimated Annual Visitors		11,000
Net Recreational Value		\$10,450

	Elevation (feet)	Area (Acres)
Monument Creek Reservoir		
Normal High Water Surface	6727.0	190
Minimum Water Surface	6708.0	101
Average Low Pool (May-Sept)	6718.0	140
Estimated Annual Visitors		9,000
Net Recreational Value		\$10,080

MUNICIPAL AND INDUSTRIAL WATER (acre feet)

Cortez Supply	4,900
Dove Creek Supply	1,200
Total	6,100

STREAM DEPLETION (acre-feet annually)

Irrigation	83,600
Municipal and Industrial	3,700
Total	87,300

ESTIMATED COSTS

Project Costs (January 1971 prices)

McPhee Dam, Dike & Reservoir	\$30,160,000
Cahone Dam and Reservoir	2,152,000
Ruin Canyon Dam and Reservoir	4,982,000
Monument Creek Dam and Reservoir	3,260,000
Dove Creek Canal	11,653,000
South Canal	795,000
Hovenweep Canal	876,000
Cahone Canal	418,000
Great Cut Canal	1,806,000

ESTIMATED COSTS (Cont'd)

Laterals	6,387,000
Drains	857,000
OM&R Facilities	870,000
Recreation Development	593,000 <u>1/</u>
Big Game Range Improvement	100,000 <u>1/</u>
Development Fund	75,000
Total Project Cost	<u>\$64,984,000</u>
Annual Operation, Maintenance and Replacement Costs (1968-1970)	\$ 177,000

BENEFIT-COST ANALYSIS

(100-year period at 3-1/8 percent interest)

Average Annual Benefits	<u>Direct</u>	<u>Total</u>
Irrigation	\$2,760,000	\$4,140,000
Municipal and Industrial	457,500	457,500
Fish and Wildlife <u>1/</u>	61,800	61,800
Recreation <u>1/</u>	188,700	188,700
Flood Control <u>1/</u>	22,000	22,000
Water Quality <u>1/</u>	8,300	8,300
Area Redevelopment <u>2/</u>	---	---
Total	<u>\$3,498,300</u>	<u>\$4,878,300</u>
Average Annual Equivalent Costs		\$2,620,100
Benefit-Cost Ratio		1.86:1.00
Excess Total Benefits over Costs		\$+2,278,200

1/ Not current. See REMARKS

2/ Monetary value presented in Authorizing Report but eliminated for plan formulation benefit-cost studies.

PROJECT FEATURES

Reservoirs	<u>McPhee</u>	<u>Cahone</u>	<u>Ruin Canyon</u>	<u>Monument Creek</u>
Capacity (acre-feet)	364,000	4,340	16,400	5,040
Active	211,500	4,000	12,000	2,700
Inactive	152,500	340	4,000	2,340
Normal Water Surface (feet)	6,920	6,822	6,761	6,727
Surface Area (acres)	4,320	225	395	190
Dams				
Height (feet)	268	75	169	107
Crest Length (feet)	1,300	2,000	2,350	5,000
Crest Width (feet)	30	30	30	30
Type	Compacted Earth	Compacted Earth	Compacted Earth	Compacted Earth
Canals			Length (mi)	Initial Capacity (cfs)
Dove Creek			67.9	520
South			10.2	140
Hovenweep			9.0	90
Cahone			8.9	75
Great Cut			10.0	230
Laterals			140.9	vary
Drains			28.0	vary

PROJECT DATA

Location	Altitude	Area	Volume	Capacity	Notes
Point A	100	100	100	100	Point A
Point B	200	200	200	200	Point B
Point C	300	300	300	300	Point C
Point D	400	400	400	400	Point D
Point E	500	500	500	500	Point E
Point F	600	600	600	600	Point F
Point G	700	700	700	700	Point G
Point H	800	800	800	800	Point H
Point I	900	900	900	900	Point I
Point J	1000	1000	1000	1000	Point J
Point K	1100	1100	1100	1100	Point K
Point L	1200	1200	1200	1200	Point L
Point M	1300	1300	1300	1300	Point M
Point N	1400	1400	1400	1400	Point N
Point O	1500	1500	1500	1500	Point O
Point P	1600	1600	1600	1600	Point P
Point Q	1700	1700	1700	1700	Point Q
Point R	1800	1800	1800	1800	Point R
Point S	1900	1900	1900	1900	Point S
Point T	2000	2000	2000	2000	Point T
Point U	2100	2100	2100	2100	Point U
Point V	2200	2200	2200	2200	Point V
Point W	2300	2300	2300	2300	Point W
Point X	2400	2400	2400	2400	Point X
Point Y	2500	2500	2500	2500	Point Y
Point Z	2600	2600	2600	2600	Point Z
Point AA	2700	2700	2700	2700	Point AA
Point AB	2800	2800	2800	2800	Point AB
Point AC	2900	2900	2900	2900	Point AC
Point AD	3000	3000	3000	3000	Point AD
Point AE	3100	3100	3100	3100	Point AE
Point AF	3200	3200	3200	3200	Point AF
Point AG	3300	3300	3300	3300	Point AG
Point AH	3400	3400	3400	3400	Point AH
Point AI	3500	3500	3500	3500	Point AI
Point AJ	3600	3600	3600	3600	Point AJ
Point AK	3700	3700	3700	3700	Point AK
Point AL	3800	3800	3800	3800	Point AL
Point AM	3900	3900	3900	3900	Point AM
Point AN	4000	4000	4000	4000	Point AN
Point AO	4100	4100	4100	4100	Point AO
Point AP	4200	4200	4200	4200	Point AP
Point AQ	4300	4300	4300	4300	Point AQ
Point AR	4400	4400	4400	4400	Point AR
Point AS	4500	4500	4500	4500	Point AS
Point AT	4600	4600	4600	4600	Point AT
Point AU	4700	4700	4700	4700	Point AU
Point AV	4800	4800	4800	4800	Point AV
Point AW	4900	4900	4900	4900	Point AW
Point AX	5000	5000	5000	5000	Point AX
Point AY	5100	5100	5100	5100	Point AY
Point AZ	5200	5200	5200	5200	Point AZ
Point BA	5300	5300	5300	5300	Point BA
Point BB	5400	5400	5400	5400	Point BB
Point BC	5500	5500	5500	5500	Point BC
Point BD	5600	5600	5600	5600	Point BD
Point BE	5700	5700	5700	5700	Point BE
Point BF	5800	5800	5800	5800	Point BF
Point BG	5900	5900	5900	5900	Point BG
Point BH	6000	6000	6000	6000	Point BH
Point BI	6100	6100	6100	6100	Point BI
Point BJ	6200	6200	6200	6200	Point BJ
Point BK	6300	6300	6300	6300	Point BK
Point BL	6400	6400	6400	6400	Point BL
Point BM	6500	6500	6500	6500	Point BM
Point BN	6600	6600	6600	6600	Point BN
Point BO	6700	6700	6700	6700	Point BO
Point BP	6800	6800	6800	6800	Point BP
Point BQ	6900	6900	6900	6900	Point BQ
Point BR	7000	7000	7000	7000	Point BR
Point BS	7100	7100	7100	7100	Point BS
Point BT	7200	7200	7200	7200	Point BT
Point BU	7300	7300	7300	7300	Point BU
Point BV	7400	7400	7400	7400	Point BV
Point BW	7500	7500	7500	7500	Point BW
Point BX	7600	7600	7600	7600	Point BX
Point BY	7700	7700	7700	7700	Point BY
Point BZ	7800	7800	7800	7800	Point BZ
Point CA	7900	7900	7900	7900	Point CA
Point CB	8000	8000	8000	8000	Point CB
Point CC	8100	8100	8100	8100	Point CC
Point CD	8200	8200	8200	8200	Point CD
Point CE	8300	8300	8300	8300	Point CE
Point CF	8400	8400	8400	8400	Point CF
Point CG	8500	8500	8500	8500	Point CG
Point CH	8600	8600	8600	8600	Point CH
Point CI	8700	8700	8700	8700	Point CI
Point CJ	8800	8800	8800	8800	Point CJ
Point CK	8900	8900	8900	8900	Point CK
Point CL	9000	9000	9000	9000	Point CL
Point CM	9100	9100	9100	9100	Point CM
Point CN	9200	9200	9200	9200	Point CN
Point CO	9300	9300	9300	9300	Point CO
Point CP	9400	9400	9400	9400	Point CP
Point CQ	9500	9500	9500	9500	Point CQ
Point CR	9600	9600	9600	9600	Point CR
Point CS	9700	9700	9700	9700	Point CS
Point CT	9800	9800	9800	9800	Point CT
Point CU	9900	9900	9900	9900	Point CU
Point CV	10000	10000	10000	10000	Point CV

REMARKS

Benefits and associated costs developed by non-reclamation agencies which have not been reviewed or updated by the appropriate agency are listed as follows:

1. Flood Control Benefits - \$22,000 annually provided by Corps of Engineers Report, October 1961.
2. Recreation Benefits - \$188,700 annually provided by National Park Service Report, as revised October 1963.
3. Fish and Wildlife Benefits - \$61,800 annually for all reservoirs, except Ground Hog and Narraguinnep, as provided by U. S. Bureau of Sports Fisheries and Wildlife report supplement, May 16, 1963. A further supplement prepared December 13, 1968 recommends Totten Lake and Dawson Draw developments. These recommendations are not included in the summary sheets.
4. Water Quality Benefits - \$8,300 annually provided by the U. S. Public Health Service November 9, 1962, letter supplement to their November 1961 report.

Refer to House Document No. 412, March 17, 1966, Dolores Project, Colorado. Project reformulation will require an updating of these values to reflect recent emphasis on environmental considerations.

Summary

Exercises and associated costs allocated by the Commission are listed below and have not been reviewed or audited by the appropriate agency. The following are listed as follows:

1. Food Control Exercise - \$10,000 annually provided by State of California Report, October 1961.
2. Recruitment Exercise - \$10,000 annually provided by National Park Service Report, as revised October 1961.
3. Fire and Wildlife Exercise - \$10,000 annually for all resources, except ground and development, as provided by U. S. Forest Service Report, as revised October 1961. A further supplement prepared December 11, 1961, concerning fire and forest development. These recommendations are not included in the summary above.
4. Water Quality Exercise - \$5,000 annually provided by the U. S. Public Health Service November 2, 1961. Letter agreement to their November 1961 report.

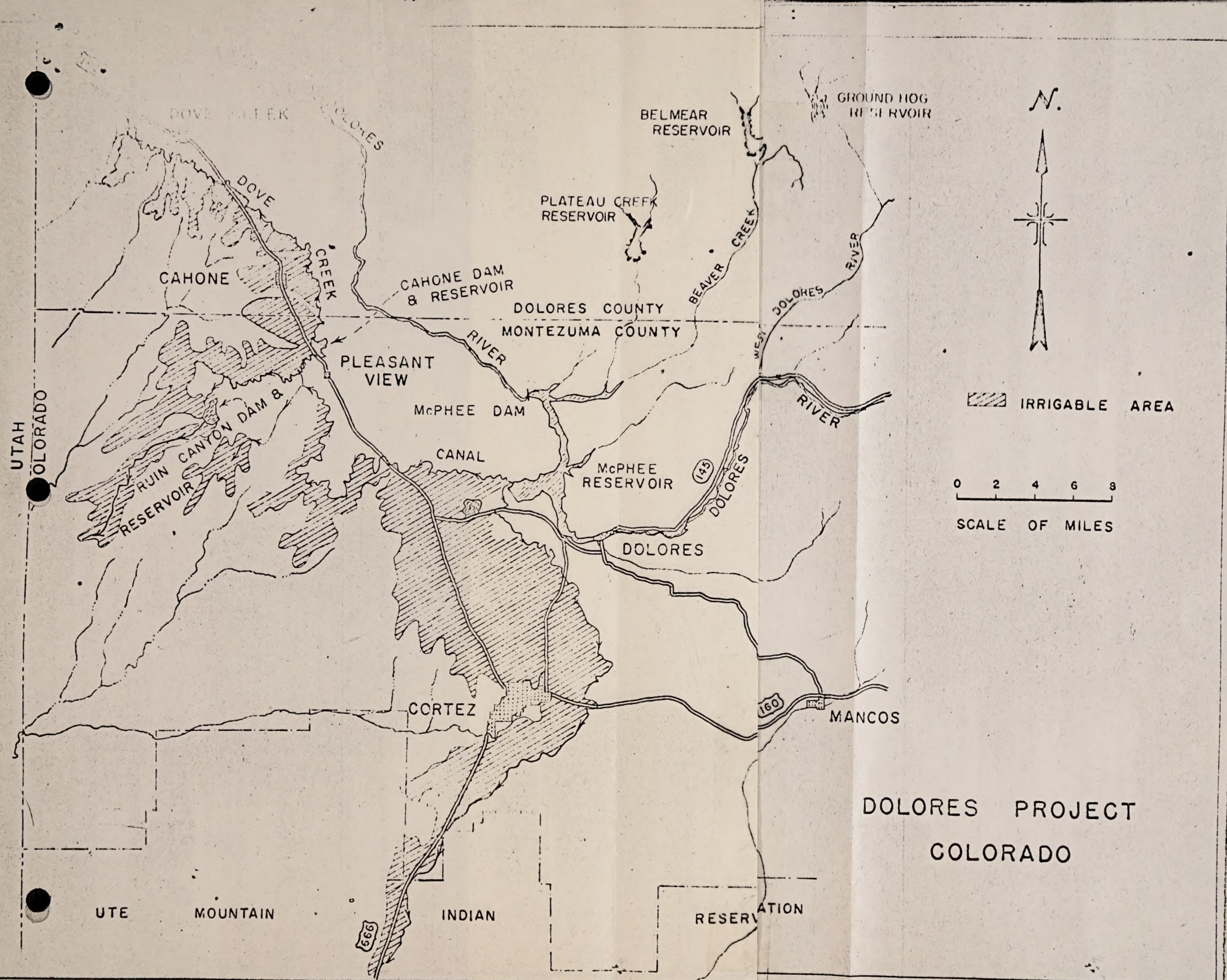
Refer to House Document No. 412, March 17, 1966, Defense Project, Colorado. Project administration will provide an updating of these values to reflect recent changes on environmental considerations.

AGENCIES REQUESTED TO PARTICIPATE
PLAN FORMULATION MEETING OF DOLORES PROJECT
Durango, Colorado, April 25-27, 1972

1. National Park Service
Omaha, Nebraska
2. Bureau of Sport Fisheries & Wildlife
Salt Lake City, Utah
3. Colorado Division of Game, Fish & Parks
Denver, Colorado
4. Environmental Protection Agency
Denver, Colorado
5. U. S. Corps of Engineers
Sacramento, California
6. Forest Service
Durango, Colorado
7. Bureau of Outdoor Recreation
Lakewood, Colorado
8. Bureau of Land Management
Montrose, Colorado

MEMORANDUM SUBMITTED TO PARTICIPANTS
PLAN FOR THE 1972 MEETING OF THE BOARD OF DIRECTORS
Boulder, Colorado, April 22-27, 1972

1. National Park Service
Golden, Colorado
2. Bureau of Sport Fisheries & Wildlife
Salt Lake City, Utah
3. Colorado Division of Game, Fish & Parks
Denver, Colorado
4. Environmental Protection Agency
Denver, Colorado
5. U. S. Corps of Engineers
Sacramento, California
6. Forest Service
Boulder, Colorado
7. Bureau of Indian Affairs
Boulder, Colorado
8. Bureau of Land Management
Boulder, Colorado



ALTERNATIVE PLANS DESCRIPTION

PLAN III

Offstream Site Alternatives - Several offstream reservoir sites emphasizing a stream fishery development below McPhee dam were studied. The two most attractive in terms of cost per acre-foot of storage are the Belmear Site on Beaver Creek and Plateau Site #2 on Plateau Creek. However, after area-runoff studies were completed the inflow to the Belmear Site was found to be insufficient to develop a stream fishery. A general map page 1 shows the approximate locations of both sites. A quadrangle map view of the Plateau Site is shown on page 2. The water surface elevation illustrates the maximum storage capability at the site. An elevation versus area and capacity curve is shown on page 3. To equally compare the addition of the Plateau Site with the Forks Site, a simulated water operation study including McPhee Reservoir was made. The estimated inflow into Plateau Creek is shown on page 4. The Plateau Creek reservoir site provides adequate control to develop a 20 and 10 cfs flow below McPhee. A profile sketch of pertinent elevations, areas and capacities is shown on page 5. Storage costs for developing the maximum possible fishery from the Plateau Site are summarized on page 6. Shortages for irrigation and the stream fishery below McPhee would be pro-rated equally.

Apparent advantages of the Plateau site over the Forks site are:

1. Smaller drainage area creates a less expensive spillway cost.
2. No major relocations are required reducing storage costs.
3. Dam site is topographically better and less expensive.
4. No significant stream fishery would be inundated.
5. A stream fishery could be developed in Plateau Creek.

Apparent disadvantages:

1. Significantly smaller inflow and reservoir site, thus minimizing potential development below McPhee.
2. Limited purposes would restrict the joint sharing of cost among many purposes through allocation.
3. Location would reduce public use.
4. Would forego potential development of stream fishery between Forks and Dolores for public use.

Other advantages and disadvantages: (list below and estimate monetary value if possible).

ELEVATION - FEET



PLATEAU CREEK RES.
SITE No. 2
30,000 A.F.

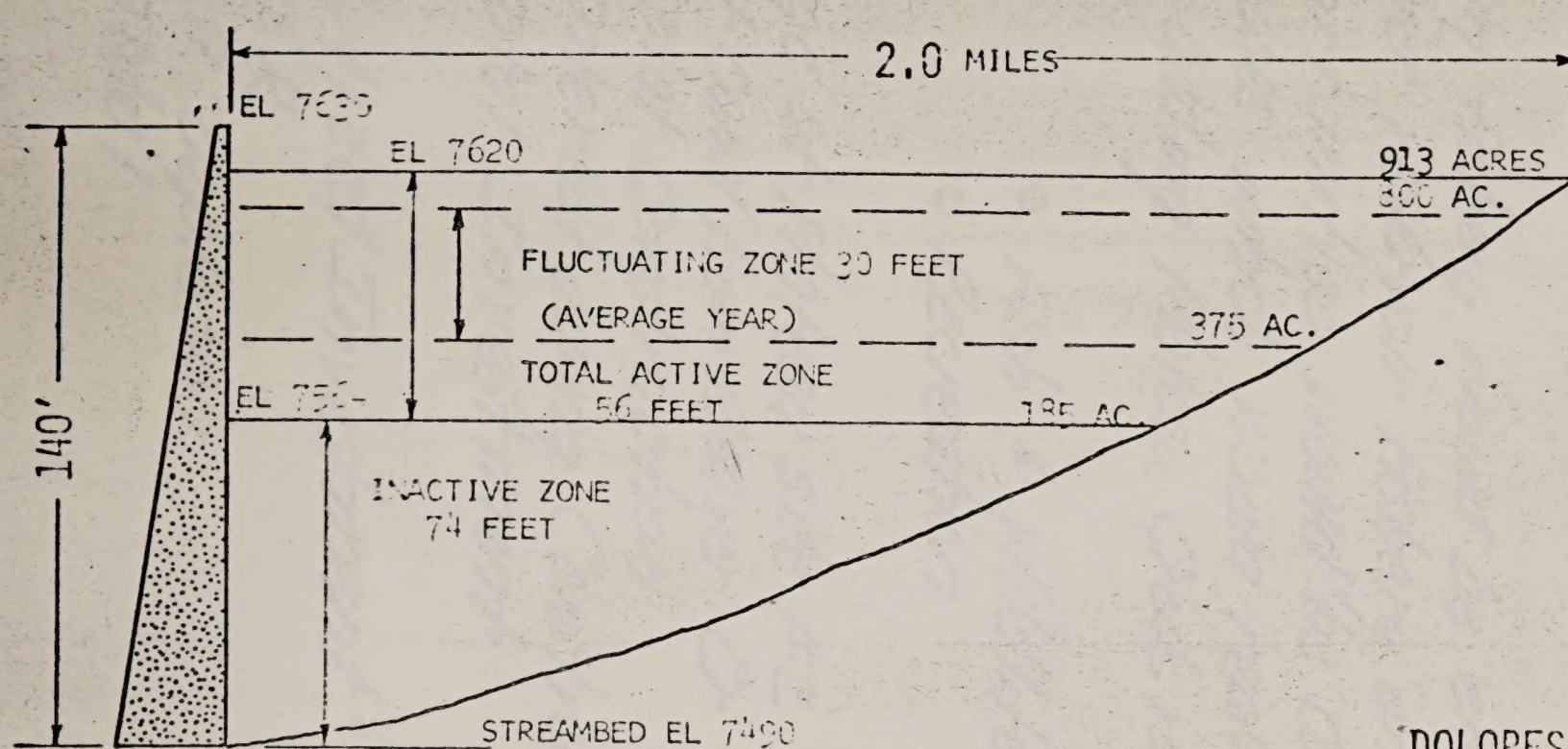
SURFACE AREA
885 AC

EL 7618 TOP OF ACTIVE
CONSERVATION CAPACITY

LOW FROM BEAVER CR.
AND TRIBUTARY

[illegible]

GPO 897822



DOLORES PROJECT
PLATEAU CREEK RESERVOIR SITE #2
PLAN III

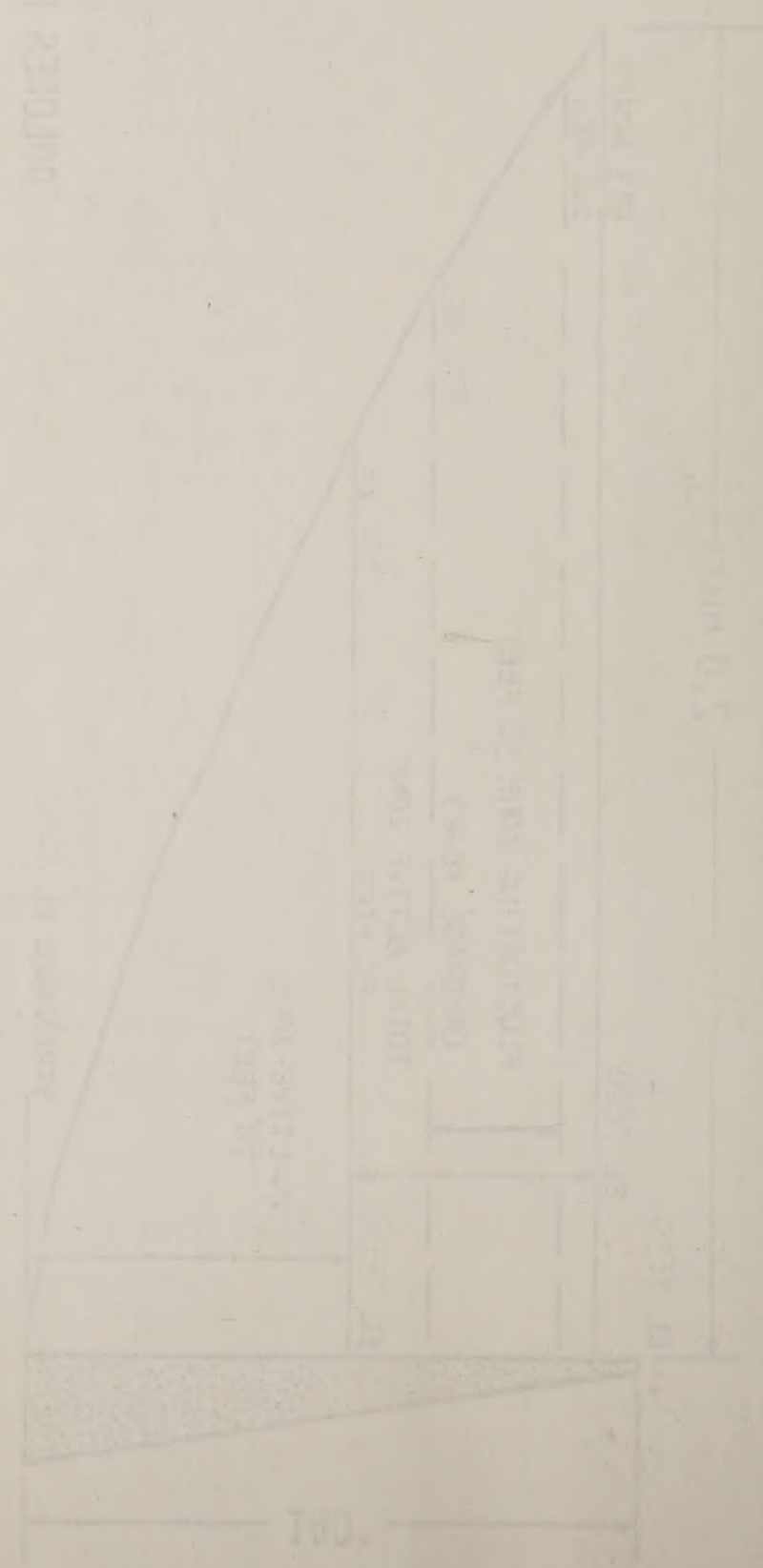
INACTIVE CAPACITY	3,000 AC.FT.
ACTIVE CAPACITY	29,000 AC.FT.
TOTAL CAPACITY	32,000 AC.FT.
EST. ANNUAL VISITOR DAYS	1/

1/ APPROPRIATE AGENCY ESTIMATE NEEDED.

THE UNIVERSITY OF CHICAGO PRESS

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1000 UNIVERSITY AVENUE
CHICAGO, ILL. 60607

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1000 UNIVERSITY AVENUE
CHICAGO, ILL. 60607



STREAM FISHERY DEVELOPMENT
BELOW MCPHEE DAM SITE

PLAN III

(storage on Plateau Creek)

20 & 10 cfs

Stream fishery would be emphasized, however reservoir fishery and recreation opportunities would be corollary effects. Purposes which would realize benefits from adding Plateau Creek reservoir would be:

- Fish & Wildlife
- Recreation

	<u>COST</u>
Storage at Plateau site #2	\$ 5,275,000
Inlet Canal from Beaver Cr	<u>385,000</u>
Total Construction	\$ 5,660,000
Interest during Construction ¹	<u>354,000</u>
Total Investment	\$ 6,014,000
Amortized Investment ¹	\$ 197,000
O, M & R	20,000
CRSP depletion	<u>1,900</u>
Total	<u>\$ 218,900</u>

¹ Interest rate is $3\frac{1}{4}\%$.

STATIONARY FACTORY DEVELOPMENT
 SECOND PROPOSED DOW SITE
 PLANT II
 (Storage on Hudson Creek)
 20 & 10 Cfs

Stationary Factory would be emphasized
 however retention factory and retention
 opportunities would be available
 purposes which would realize benefits
 from existing Hudson Creek retention would
 be:

- Retention
- Retention

25,212,000	Storage of Hudson site 42
32,212,000	Retent. Cost from Basin 12
57,424,000	Total Construction
2,000,000	Interest during Construction
59,424,000	Total Investment
1,000,000	Amount set Investment
20,000	Cost
1,000	Cost
218,000	Total

Interest rate 6% p.a.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

APPENDIX D

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

BRANCHED OFFICE, DENVER, COLORADO

U. S. BOX 1009

DENVER, COLORADO 80202

MAY 23 1962



U. S. BOX 1009
DENVER, CO 80202

Robert Anderson, Chief, R.R. 1009

U. S. BOX 1009

Denver, Colorado 80202

Project Manager, Denver, Colorado

Subject: Plan Formulation Meeting Held April 25-27, 1962, Denver, Colorado; Denotation and Organization; Denotes Project, Colorado

Enclosed is an attached list of agencies and representatives which participated in the Denver Project Plan Formulation meeting held in Denver, Colorado, April 25-27, 1962.

An additional meeting was prepared by the Colorado State, Fish and Game Department and is attached for your review and information. The Denver Project Office is currently conducting similar studies which, when available, will provide your agency preliminary data on the alternatives suggested the last day of the meeting.

The time schedule, cooperation, and arrangements expressed during the three day meeting were extremely valuable and provide a basis for holding a Denver Project to meet a wide variety of interests. The Denver Office greatly appreciated the time effort and your agency's candid input.

We look forward to further close cooperation during the following stages of Project Plan Formulation.

Handwritten signature: William H. McInnis

COOPERATING AGENCIES MEETING

April 25, 1972

REPRESENTATIVE

AGENCY

Ken Krabbenhoft

NPS - Omaha, Nebraska

Clark D. Johnson

USBSFW - Salt Lake City, Utah

Don Bartsch

USBSFW - Vernal, Utah

Don Smith

GF&P - Denver, Colorado

Ivan Wescoatt

GF&P - Denver, Colorado

Dick McDonald

GF&P - Durango, Colorado

William C. Weiler

GF&P - Montrose, Colorado

Denis Nelson

EPA - Denver, Colorado

Lee McQuivey

C of E - Salt Lake City, Utah

Rod Blacker

USFS - Durango, Colorado

Jess Smith

USFS - Denver, Colorado

Allan O'Neill

BOR - Lakewood, Colorado

Roger Maxwell

BOR - Lakewood, Colorado

Bob Anderson

BLM - Montrose, Colorado

Brent Jensen

BLM - Montrose, Colorado

Jerry Kendrick

BLM - Durango, Colorado

Cliff Jex

SWWCB - Grand Junction, Colorado

BUREAU OF RECLAMATION PARTICIPANTS

Paul Willmore

USBR - Salt Lake City, Utah

David Nelson

USBR - Salt Lake City, Utah

Ed Wiscombe

USBR - Durango, Colorado

Bob Tyner

USBR - Durango, Colorado

Ernie Gregg

USBR - Durango, Colorado

Don Clay

USBR - Durango, Colorado

Wayne Cook

USBR - Durango, Colorado

Glade Barney

USBR - Durango, Colorado

Walter Wilkins

USBR - Durango, Colorado

25-27 April 1972 - 1

DOLORES PROJECT

Planning Meeting
Summarization

Date	Initial
4/21	DDP
5/5	DDP
5/12	DDP
5/15	DDP
5/19	DDP

The goals for this meeting are shown in Appendix A. The authorized Dolores Project plan was presented together with four alternative plans designed by the Bureau of Reclamation to salvage something for the environment. The B. R. plans are summarized as follows:

Authorized Plan - Reservoir Construction Only

McPhee Reservoir	4320 surface acres -	High water
	2070 surface acres -	Minimum
Cahone Reservoir	225 surface acres -	High water
	37 surface acres -	Minimum
Ruin Canyon Reservoir	395 surface acres -	High water
	163 surface acres -	Minimum
Monument Creek Res.	190 surface acres -	High water
	101 surface acres -	Minimum

No stream releases for any purpose except for an 8 cfs release for downstream water rights below McPhee.

Plan Ia. Add to the authorized plan

Forks Reservoir	1260 surface acres -	High water
	87,000 Acre Feet -	Active Storage
Release 50 and 35 cfs below McPhee for a fishery		
60 foot average fluctuation on Forks.		

Plan Ib. Add to the Authorized plan

Forks Reservoir	640 surface acres -	High water
	32,000 Acre Feet -	Active Storage
Release 20 and 10 cfs below McPhee for a fishery		
45 foot average fluctuation on Forks		

Plan II Add to the Authorized plan

Forks Reservoir	2230 surface acres -	High water
	213,500 Acre feet -	Active storage
Release 20 and 10 cfs below McPhee for a fishery		
54 foot average fluctuation on Forks		
Power Plant below Forks with an average release of 310 cfs		
for electricity for pumping at the Great Cut at McPhee.		
Stabilize McPhee - 10 foot fluctuation on the average.		

Plan III Add to the Authorized plan

Plateau Creek Reservoir	913 surface acres -	High water
	29,000 Acre feet -	Active storage
Release 20 and 10 cfs below McPhee		
30 foot average fluctuation on Plateau		

The participants at the planning meeting were asked to give dollar estimates as to development and benefits as they related to fisheries, wildlife, recreation, flood control, and water quality. After a general discussion of the entire group which seemed to center around

white-water boating and maintaining the Dolores River as a part of the National Wild Rivers System, two groups were formed: fisheries and recreation.

The dollar values that were given to each plan by the fisheries group are shown in Appendix B. The recreation figures are not included except in the benefit/cost ratio and the net benefit. The general consensus of the group was that none of the proposed Bureau of Reclamation plans would benefit the environment for the cost involved, although Plan III was favored over the others. The Forks Reservoir site was completely opposed by everyone present.

Each group was then asked to produce a plan that would meet our own specialized objectives assuming the authorized plan will be funded.

The alternative plans are as follows and would be added to the authorized plan:

Plan I No change in the authorized plan

Plan II Plateau Creek Reservoir Plan #2 (Recreation Group)

1. Stabilize Groundhog - 5 out of 6 years it would remain full.
2. Stabilize Totten Lake - Fishing and Waterfowl development.
3. Construct Dawson Draw Reservoir for fish and wildlife.
4. Construct Plateau Reservoir
5. Forecast spills at McPhee Reservoir for a white-water boater from McPhee to Bedrock (600-1000 cfs release May and June)
6. Increase releases below McPhee
 - a. Use Plateau Reservoir for an 11,000 acre foot release (20-10)
 - b. Force the project to sprinklers instead of open ditches thereby getting an additional 36,000 A.F. for release.

Plan III a. Slickrock Dam and Reservoir (Fisheries Group)

1. Stabilize Groundhog Reservoir (5 out of 6 years it will remain full.)
2. Stabilize Narraquinnep Reservoir (same as above).
3. Stabilize Totten Reservoir (same as above).
4. Construct Dawson Draw Reservoir for fish and wildlife.
5. Release 84,000 acre foot from McPhee for 45 mi, McPhee to Slickrock (150 and 80 cfs. for 6 months each)(2/3 of the irrigated land would be taken out of the project).
6. Construct Slickrock Dam - 3200 surface acres - High water.
134,000 Acre feet - Total Capacity.
7. Release 750 cfs from Slickrock Dam for a 45 day white-water boater from Slickrock to Bedrock, approximately 47 miles.

Plan IIIb. McPhee Fishery Plan (Fisheries Group)

1. Same as Plan IIIa except eliminate Slickrock Dam. (No white-water boater).

Plan III b. (continued)

2. Fishery release would be 150 and 80 cfs and would go from McPhee to beyond Bedrock (90+ miles).

Plan IV No development at all

Expenses for the alternative plans will be sent to each agency for evaluation similar to the evaluations given the Bureau of Reclamation proposed plans. These valuations are to be returned to them for selection of a recommended plan by June, 1972. The fishery data for Plan IIIa. is summarized in Appendix C.

Bill.

GOAL

PREPARE PRELIMINARY PLAN FOR THE DOLORES PROJECT

OBJECTIVES:

1. Develop environmental emphasis to be added to a base M&I and irrigation plan.
 - a. Fishing below McPhee
 - b. Water Quality
 - c. Flood Control
 - d. Recreation
 - e. Wildlife
2. Develop data for Environmental Statement.
 - a. Develop alternative plans for consideration and evaluation
 - b. Develop basic data for recommended selected plan.

THESE TESTIMONY WAS FOR THE BUREAU REPORT

CONFIDENTIAL

1. During the period of the report to be added to a copy of

and attached to the

2. During the period of the

3. During the period of the

4. During the period of the

5. During the period of the

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DOLORES PROJECT

Planning Meeting
25-27 April 72

REFINED AUTHORIZED PLAN
(No Stream Fishery Provided)

Authorized benefit cost ratio 1.68:1
Net benefit = + \$1,720,200

FISHERY

Non-Reclamation Benefits

Developments	Estimated Visitor Days	
@ Cahone Reservoir	1,000 x \$1.50	\$ 1,500
@ Ruin Canyon Res.	10,000 x 1.50	15,000
@ McPhee Reservoir	27,000 x 1.50	40,500
Average Annual Benefits		+ 57,000

Non-Development Benefits or Losses

2000 man days lost @ McPhee

WILDLIFE

Non-Reclamation Costs

Total Development Costs --- Big Game Mitigation. \$150,000

Non-Reclamation Benefits

Developments	
Average Annual Benefits	+ \$ 2,100

FLOOD CONTROL

Non-Reclamation Benefits

Developments	
@ McPhee Reservoir	+ \$ 41,000

1/ Dawson Draw & Totten Lake Developments Do Not Need Updating
At This Time. These Developments Would Be The Same In All Plans.

Estimated Value
Estimated Value
Estimated Value

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PLAN 1-A

Forks Reservoir @ 90,000 A.F. Total
Stream Fishery below McPhee 50-35 cfs

Addition of this Plan to the Authorized Plan

Benefit cost ratio	0.1:1
Net benefit	- \$741,800

FISHERY

Non-Reclamation Costs

Developments			
@ Forks Reservoir	Fishing Easement	\$1,000,000	Hatchery
@ McPhee Reservoir			
Between Reservoirs	All stream easements	100,000	1).
Below McPhee Reservoir	(above & below)		
Total Development Cost		\$1,100,000	

Non-Reclamation Benefits All benefits to Forks Res. dependent on access.

Developments		
@ Forks Reservoir	4,000 fm w 200 Ac min. pool	6,000
@ McPhee Reservoir	27,000 fm	40,500
Between Reservoirs	2,000 fm @\$3.00 w access	6,000
Below McPhee Res.	5,000 fm @ 3.00	15,000
Average Annual Benefits		\$ 67,500

Non-Development Benefits or Losses

500/mi. 2,000 man days lost on stream @ Forks
200/mi. 2,000 man days lost on stream @ McPhee

1). Might be duplicated by Recreation Area - Fishing Only

WILDLIFE

Non-Reclamation Costs

Developments		
@ Forks Reservoir	1500 acres @ \$4,000	\$6,000,000
Big Game Mitigation		150,000
Total Development Cost		\$6,150,000

Non-Reclamation Benefits

Developments	
Average Annual Benefits	\$ 2,100

Non-Development Benefits or Losses

150 elk man days lost with Forks construction.

FLOOD CONTROL

Non-Reclamation Benefits

Developments	
@ Mc Phee Reservoir	\$ 34,000
Below McPhee Reservoir	41,000
Average Annual Benefits	75,000

Page 10
Total Investment: \$1,000,000
Total Return: \$1,000,000

Investment Summary

Investment: \$1,000,000
Return: \$1,000,000

Summary

Investment Summary

Investment: \$1,000,000
Return: \$1,000,000
Total Investment: \$1,000,000
Total Return: \$1,000,000

Investment Summary

Investment: \$1,000,000
Return: \$1,000,000
Total Investment: \$1,000,000
Total Return: \$1,000,000

Investment Summary

Investment: \$1,000,000
Return: \$1,000,000
Total Investment: \$1,000,000
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Investment Summary

Summary

Investment Summary

Investment: \$1,000,000
Return: \$1,000,000
Total Investment: \$1,000,000
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Investment Summary

Investment: \$1,000,000
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Investment Summary

Investment: \$1,000,000
Return: \$1,000,000
Total Investment: \$1,000,000
Total Return: \$1,000,000

Summary

Investment Summary

Investment: \$1,000,000
Return: \$1,000,000
Total Investment: \$1,000,000
Total Return: \$1,000,000

PLAN 1-B

Forks Reservoir @ 35,000 A.F. Total
Stream Fishery Below McPhee 20 & 10 cfs

Addition of this Plan to the Authorized Plan

Benefit Cost Ratio	0.1:1
Net Benefit	- \$ 443,500

FISHERY

Non-Reclamation Costs

Developments	\$ 1,000,000	Hatchery
@McPhee Reservoir all stream easements	80,000	
Total Development Cost	\$ 1,080,000	

All benefits to Forks Reservoir dependent on access.

Non-Reclamation Benefits

Developments	
@ Forks Reservoir 3,000 fm. w 200 ac. min. pool	4,500
@ McPhee Reservoir 27,000 fm.	40,500
Between Reservoirs 2,000 fm. @ 3.00	6,000
Below McPhee Res. 5,000 fm. @ 3.00	15,000
Average Annual Benefit	\$ 66,000

Non-Development Benefits or Losses

500/mi. 1,000 man days lost on stream @ Forks
200/mi. 2,000 man days lost on stream @ McPhee

WILDLIFE

Non-Reclamation Costs

Developments	
@ Forks Reservoir 600 acres \$4,000	\$2,400,000
Below McPhee Reservoir	150,000
Total Development Cost	\$2,550,000

Non-Reclamation Benefits

Developments	
Average Annual Benefit	2,100

Non-Development Benefits or Losses

75 elk man days lost with Forks Construction

FLOOD CONTROL

Non-Reclamation Benefits

Developments	
Between Reservoirs	\$ 10,000
Below McPhee Reservoir	41,000
Average Annual Benefit	\$ 51,000

1950-1951
Total 1950-1951 204,400

Construction Costs

Benefit from 1950-1951 204,400

Summary

Construction Costs

Development 1,000,000
Construction 1,000,000
Total Development Cost 2,000,000

All amounts are in thousands of dollars

Construction Costs

Development 1,000,000
Construction 1,000,000
Total Development Cost 2,000,000

Construction Costs

Development 1,000,000
Construction 1,000,000
Total Development Cost 2,000,000

Summary

Construction Costs

Development 1,000,000
Construction 1,000,000
Total Development Cost 2,000,000

Construction Costs

Development 1,000,000
Construction 1,000,000
Total Development Cost 2,000,000

Construction Costs

Development 1,000,000
Construction 1,000,000
Total Development Cost 2,000,000

Summary

Construction Costs

Development 1,000,000
Construction 1,000,000
Total Development Cost 2,000,000

PLAN II
 Forks Reservoir @ 270,000 A.F.
 Stabilize McPhee NR 364,000 A.F.
 Forks Power Plant, Transmission Line and
 Great Cut Pumping Plant, Stream Fishery
 Below McPhee @ 20 & 10 cfs

Addition of this Plan to the Authorized Plan

Benefit Cost Ratio	0.27:1
Net Benefit	- \$ 1,056,100

FISHERY

Non-Reclamation Costs

Developments	
@ Forks Reservoir	\$ 1,300,000 Hatchery
Between Reservoirs all stream easements	<u>100,000</u>
Below McPhee Reservoir (above & below)	
Total Development Cost	\$ 1,400,000

All benefits to Forks Reservoir dependent on access.

Non-Reclamation Benefits

Developments	
@ Forks Reservoir 20,000 fm w 900+ acres min. pool	\$ 30,000
@ McPhee Reservoir 37,000 fm w 3700 acres min. pool	53,000
Between Reservoirs 2,000 fm w \$3.00 w access	6,000
Below McPhee Reservoir 5,000 fm @ 3.00	<u>15,000</u>
Average Annual Benefits	\$104,000

Non-Development Benefits or Losses

500/mi. 3,000 man days lost on stream @ Forks
 200/mi. 2,000 man days lost on stream @ McPhee

WILDLIFE

Non-Reclamation Costs

Developments	
@ Forks Reservoir 2,500 @ \$4,000/acre	\$10,000,000
Below McPhee Reservoir	<u>150,000</u>
Total Development Cost	\$10,150,000

Non-Reclamation Benefits

Below McPhee Reservoir	2,100
------------------------	-------

Non-Development Benefits or Losses

300 elk man days lost w Forks Construction.

FLOOD CONTROL

Non-Reclamation Benefits

Developments	
@ Forks Reservoir	\$ 58,000
@ McPhee Reservoir	<u>41,000</u>
	\$ 99,000

PLAN III

PLATEAU RESERVOIR @ 32,000 A.F.
Stream Fishery Below McPhee 20 & 10 cfs

Addition of this Plan to the Authorized Plan

Benefit Cost Ratio	0.19:1
Net Benefit	- \$ 200,700

FISHERY

Non-Reclamation Costs

Developments	\$ 1,000,000	Hatchery
Below McPhee Reservoir Fishing easements	50,000	
Total Development Cost	\$ 1,050,000	

Non-Reclamation Benefits

Developments	
@ McPhee Reservoir 27,000 fm	\$40,500
@ Plateau Cr. Reservoir 15 fm with 200 min ac @1.50	4,500
Below McPhee Reservoir 5,000 fm @ \$3.00	15,000
Average Annual Benefits	\$60,000

WILDLIFE

Non-Reclamation Costs

Developments	\$150,000
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Non-Reclamation Benefits

Average Annual Benefits	2,100
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FLOOD CONTROL

Non-Reclamation Benefits

Below McPhee Reservoir	\$ 41,000
Average Annual Benefits	\$ 41,000

PLANTING MATERIALS - 1950
 PLANTING MATERIALS - 1951
 PLANTING MATERIALS - 1952

PLANTING MATERIALS - 1950

PLANTING MATERIALS - 1950
 PLANTING MATERIALS - 1951
 PLANTING MATERIALS - 1952

PLANTING MATERIALS - 1951

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PLANTING MATERIALS - 1957

PLANTING MATERIALS - 1958

PLANTING MATERIALS - 1958
 PLANTING MATERIALS - 1959
 PLANTING MATERIALS - 1960

SLICKROCK - Alternative Plan (IIIa)

Fishery

Non-Reclamation Costs

Developments

McPhee Reservoir as authorized

(84,000 acre feet for release)

150 for 6 mos.

80 for 6 mos.

Stabilize Groundhog

5 out of 6 years

0

Stabilize Narraguinnep

Slickrock Dam

\$13,624,000

Easement acquisition

100,000

Hatchery

1,000,000

Totten Lake

220,000

Dawson Draw

280,000

Non-Reclamation Benefits

Developments

McPhee

27,000 fm. \$1.50 per

\$ 40,500

Groundhog

11,000 fm @ 1.50

16,500

Narraguinnep

Slickrock Dam 1000 acre min pool - 20/acre

30,000

River between

400 fm - 30 mi = 12,000

42,000

McPhee & Slick-

100 fm - 15 mi = 2,000

rock (45 miles)

Dawson Lake

64,600

Totten Lake

12,700

\$ 204,300

Slickrock Dam & Reservoir 180' high 1,000' long 1,500 cfs outlet
134,200 acre feet 3,200 acres surface high water

Wildlife

Non-Reclamation Costs

Developments

Slickrock (3200 acres) habitat loss @ \$100

\$ 320,000

McPhee Big Game mitigation

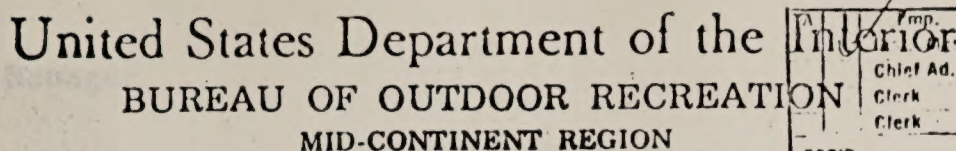
150,000

Non-Reclamation Benefits

Developments

\$ 1,000

APPENDIX E



D6427UCO
Dolores

MAILING ADDRESS:
Post Office Box 25387
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION
603 Miller Court
Lakewood, Colorado
Telephone 234-2634

Interior		Chief RM	
Chief Ad.		Chief OP	
Clerk		Range	
Clerk		Forest	

REC'D. AUG 3 1972 MONT. DIST.

Engr	Really S.
Delta	NRS
Gunnison	Wildlife
Montrose	San Juan
San Miguel	Deadline

AUG 1 1972

To: Project Manager, Bureau of Reclamation, Durango Projects
Office, Durango, Colorado

From: **ACTING** Regional Director.

Subject: Recreation Evaluation of Alternative Plans for the
Authorized Dolores Project

As agreed to at the April 25-27 interagency meeting on the Dolores Project, we have prepared a recreation cost-benefit analysis of various alternatives to the authorized plan. These include some alternatives which were not discussed at the meeting. Consideration was given to disbenefits as far as they could be determined; however, Fish and Wildlife benefits and disbenefits were not included in our analysis. This data should be helpful in formulating a finalized plan for the Dolores and aid in preparation of the project environmental impact statement.

Our figures do not tell the entire story since construction costs for Plateau Reservoir and loss of benefits for irrigation are not incorporated into our analysis. We hope that you will have no difficulty in making these necessary adjustments.

The alternatives evaluated are listed below:

Alternative I - The construction of Plateau Reservoir in addition to McPhee to augment late summer flows on the Dolores. (80-100 cfs)

Recreation Land and Facility Cost

\$896,000

Annual OM&R

\$56,000

Annual Benefits

\$300,000

Alternative II - The construction of Plateau Reservoir in addition to McPhee to augment boating days (15 additional days)

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$385,000	\$27,000	\$372,000

Alternative III - Two-thirds of irrigation dropped from McPhee to augment flows throughout the year

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$896,000	\$56,000	\$325,000

Alternative IV - Two-thirds of irrigation dropped from McPhee to augment boating days (42 additional days)

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$385,000	\$27,000	\$630,000

Alternative V - Use of water saved from sprinkler system to augment late summer flows (30,000 acre-feet) and construction of Plateau to augment boating days (15 additional days)

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$896,000	\$56,000	\$432,000

Alternative VI - Use of water saved from sprinkler system and construction of Plateau to augment boating days (30 additional days)

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$385,000	\$27,000	\$500,000

Alternative VII - Use of water saved from sprinkler system to augment late summer flows (30,000 acre-feet)

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$896,000	\$56,000	\$300,000

Alternative I - Two-thirds of investigation dropped from within the summer time throughout the year	Facility Cost	Operation and Maintenance Cost	Annual Total	Annual Benefit
	\$100,000	\$100,000	\$200,000	\$200,000

Alternative II - Two-thirds of investigation dropped from within the summer time throughout the year	Facility Cost	Operation and Maintenance Cost	Annual Total	Annual Benefit
	\$100,000	\$100,000	\$200,000	\$200,000

Alternative III - Two-thirds of investigation dropped from within the summer time throughout the year	Facility Cost	Operation and Maintenance Cost	Annual Total	Annual Benefit
	\$100,000	\$100,000	\$200,000	\$200,000

Alternative IV - Two-thirds of investigation dropped from within the summer time throughout the year	Facility Cost	Operation and Maintenance Cost	Annual Total	Annual Benefit
	\$100,000	\$100,000	\$200,000	\$200,000

Alternative V - Two-thirds of investigation dropped from within the summer time throughout the year	Facility Cost	Operation and Maintenance Cost	Annual Total	Annual Benefit
	\$100,000	\$100,000	\$200,000	\$200,000

Alternative VI - Two-thirds of investigation dropped from within the summer time throughout the year	Facility Cost	Operation and Maintenance Cost	Annual Total	Annual Benefit
	\$100,000	\$100,000	\$200,000	\$200,000

Alternative VII - Two-thirds of investigation dropped from within the summer time throughout the year	Facility Cost	Operation and Maintenance Cost	Annual Total	Annual Benefit
	\$100,000	\$100,000	\$200,000	\$200,000

Alternative VIII - Use of water saved from sprinkler system to augment boating days (15 additional days)

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$385,000	\$27,000	\$372,000

Alternative IX - Wild and Scenic River (No project)

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$385,000	\$27,000	\$280,000

Alternative X - Wild and Scenic River (With project)

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
\$385,000	\$27,000	\$220,000

Alternative XI - Status quo

<u>Recreation Land and Facility Cost</u>	<u>Annual OM&R</u>	<u>Annual Benefits</u>
0	0	\$115,000

If there are any questions concerning this information, please let us know.

for *Alan O'Neil*
Harold R. Green

cc: BOR, WASO, Resource Area Studies
National Park Service, Omaha
Bureau of Sport Fisheries and Wildlife, Division of River
Basins Studies, Salt Lake City
✓ Bureau of Land Management, Montrose
Colorado Division of Parks and Outdoor Recreation

Alternative VII - Use of water from the existing system to
provide water for the additional area

Estimated Land and Facility Cost	Annual Cost	Annual Benefits
\$27,500	\$27,500	\$27,500

Alternative IX - Use of the River (to provide)

Estimated Land and Facility Cost	Annual Cost	Annual Benefits
\$27,500	\$27,500	\$27,500

Alternative X - Use of the River (to provide)

Estimated Land and Facility Cost	Annual Cost	Annual Benefits
\$27,500	\$27,500	\$27,500

Alternative XI - Use of the River

Estimated Land and Facility Cost	Annual Cost	Annual Benefits
\$	\$	\$27,500

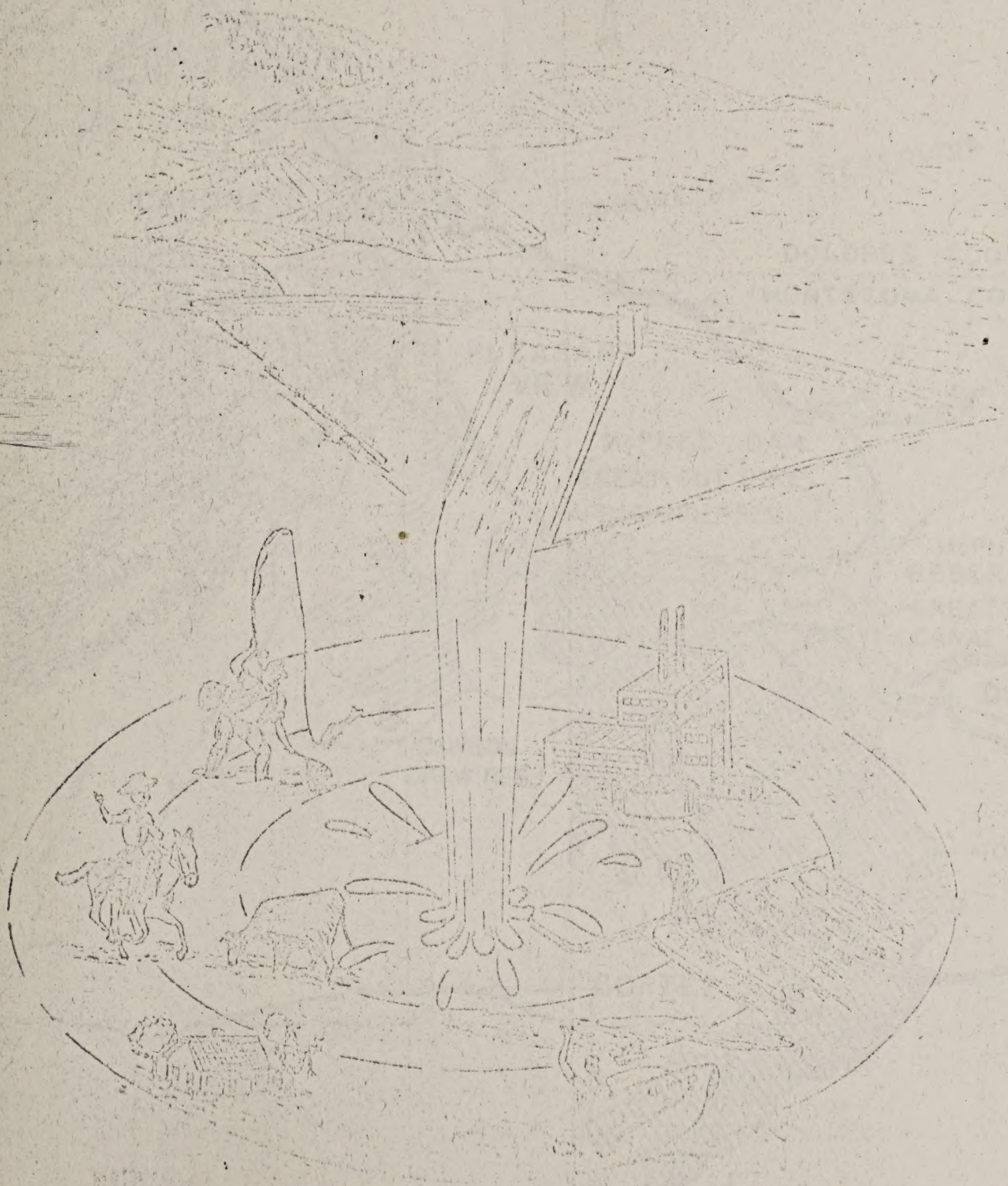
If there are any questions concerning this information, please let
me know.

W. A. O'Neil

for Harold E. O'Neil

Mr. H. W. O'Neil, Research Area Director
National Park Service, Denver
Bureau of Sport Fisheries and Wildlife, Division of Sport
Fishes, Lake City
Bureau of Land Management, Denver
Colorado Division of Parks and Outdoor Recreation

APPENDIX F

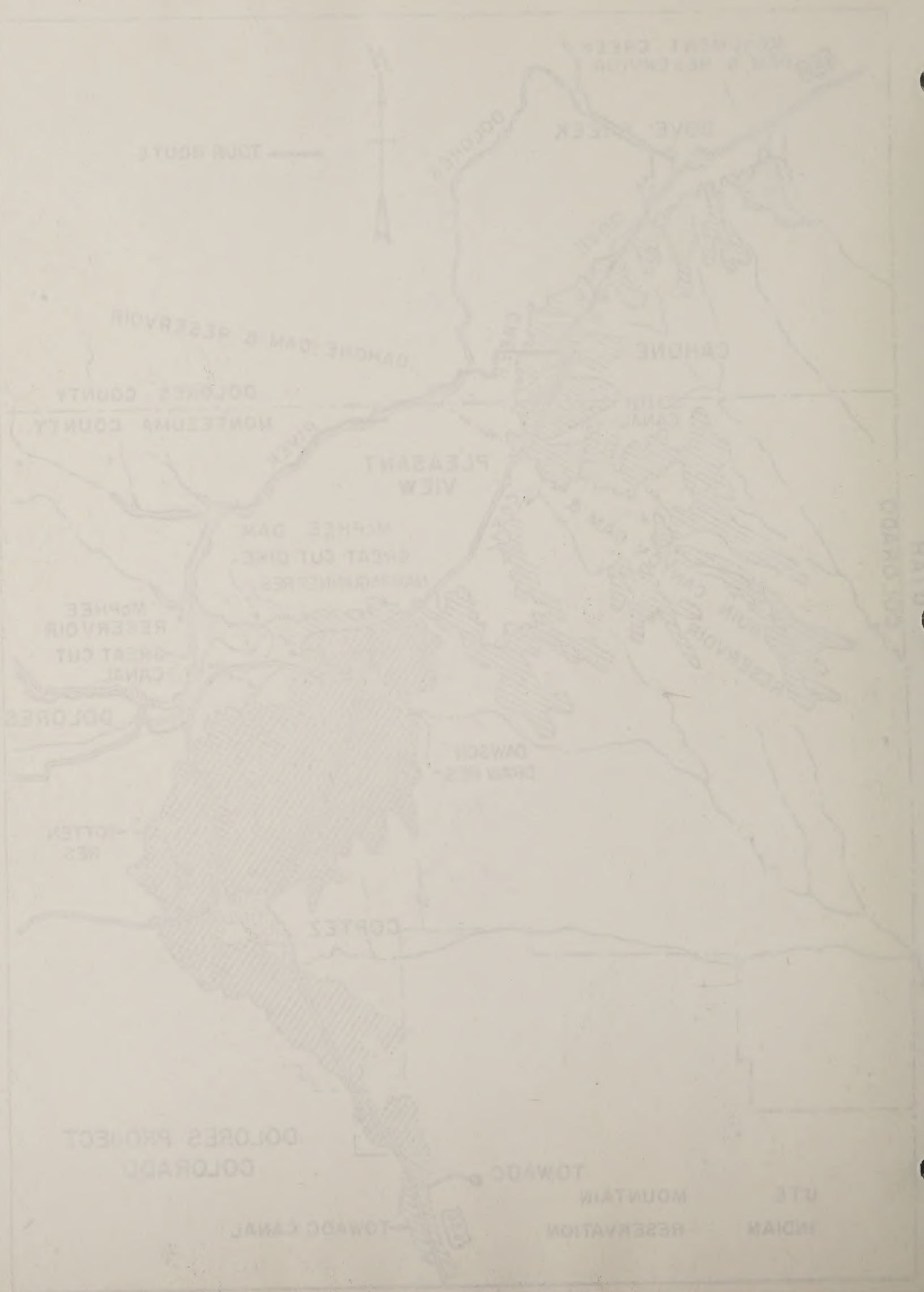


Spokane:

DOLORES CONCERNANCE DISTRICT

THE NORTHWESTERN FIRE INSURANCE





PROJECT OBJECTIVES

MUNICIPAL, RURAL & INDUSTRIAL WATER SUPPLY

DEVELOPMENT OF INDIAN RESOURCES

DIVERSIFICATION OF AGRICULTURE

EXPANSION OF RECREATION OPPORTUNITIES

INCREASE IN FISH & WILDLIFE HABITAT

DEVELOPMENT OF A PREDICTABLE WHITE WATER BOATERY

FLOOD CONTROL

PROJECT OBJECTIVES

IMPROVE RURAL & INDUSTRIAL WATER SUPPLY

DEVELOPMENT OF RURAL RESOURCES

DIVERSIFICATION OF AGRICULTURE

EXPANSION OF RECREATION OPPORTUNITIES

INCREASE IN FISH & WILDLIFE HABITAT

DEVELOPMENT OF A PREDICTABLE WHITE WATER BOATERY

FLOOD CONTROL

August 1972

DOLORS PROJECT, COLORADO

LOCATION: Dolores and Montezuma Counties in Southwestern Colorado of the Upper Colorado River Basin

AUTHORIZATION: Construction, Operation and Maintenance of the Dolores Project Was Authorized as a Participating Project of the Colorado Storage Project.

OBJECTIVES:

The plan presented in the authorizing report provided for 6,100 acre-foot of Municipal, Rural and Industrial water for the communities and vicinities near Cortez and Dove Creek, Colorado. Other immediate and future municipal and industrial water needs can be met by the project. Development of Indian resources, including agriculture, recreation, and fish and wildlife potentials is included. The project will diversify use of approximately 30,840 acres of presently dry farmed bean and wheat land into principally a livestock and livestock feed economy, including beef and dairy cattle products. Supplemental water will be provided 28,660 acres of land presently experiencing an insufficient water supply.

Facilities are planned for McPhee Reservoir and several smaller reservoirs to provide a variety of recreational opportunities. The small lakes formed within the agricultural areas will provide unique local water oriented recreation opportunities. Increased fish, wildlife and small game habitat will be provided by the construction of Dawson Draw and Totten Lake facilities. Stabilization of Narraguinnep and Ground Hog Reservoirs would also significantly improve wildlife habitat and natural fish propagation.

Predictable white water boater would allow a greater number of float boating participants through forecasted releases from McPhee Reservoir. Some flood control would also be provided by the project.

DESCRIPTION:

Primary regulation of Dolores River flows will be provided at the 364,000 acre-foot McPhee Reservoir to be formed on the river at the eastern edge of the project area by McPhee Dam and Great Cut Dike. All project water, as well as existing nonproject supplies for the Montezuma Valley area, will be diverted from the reservoir at Great Cut Dike to the proposed Dove Creek Canal.

Major diversions from the Dove Creek Canal for the Montezuma Valley Irrigation Company lands and Towaoc (Indian) area will be made near the canal head to the Great Cut Canal and Narraguinnep Draw. In the Montezuma Valley area project and nonproject water for irrigation and

August 1972

for municipal and industrial use in Cortez will be delivered by the Great Cut Canal and existing laterals. Water also will be conveyed by these works through the Montezuma Valley area to the head of the Towaoc area. Some existing conveyance works in the Montezuma Valley area will be replaced by the Dove Creek and Great Cut Canals.

In the Dove Creek area the Dove Creek Canal and its major branch, the South Canal, will deliver water to project lands and to three regulating reservoirs. The Dove Creek Canal will provide water to the 4,340 acre-foot Cahone and the 5,040 acre-foot Monument Creek regulating reservoirs. and water from these reservoirs will be distributed by Cahone Canal and Monument Creek lateral, respectively. The South Canal will provide water to the 16,400 acre-foot Ruin Canyon regulating reservoir and water from this reservoir will be distributed by the Hovenweep Canal and Cross Canyon lateral. In addition, several smaller laterals and drains will be constructed on project lands in the Dove Creek area. Municipal water will be made available for Dove Creek at Monument Creek Reservoir.

ADMINISTRATION:

The Dolores Water Conservancy District will be the main administrative and contracting agency for the Dolores Project. The Indians' interests will be represented by the Ute Mountain Ute Indian Tribe.

INVESTIGATIONS:

In about 1914, local interests requested the Bureau of Reclamation study the potential development of the Dolores Project area and investigations have been carried on intermittently since that time. The Bureau of Reclamation first reported on the Dolores Project in a report of March 1946 entitled The Colorado River, which inventoried all potential projects in the Colorado River Basin. In May 1954, a status report of the Dolores Project was published. The rough reconnaissance analysis made for this report showed that the project was economically justified and that further studies directed towards completion of a feasibility report for submission to Congress were warranted. Feasibility investigations were resumed in July 1954, and completed in November 1963.

The feasibility report of the Dolores Project was transmitted to the effected states of the Colorado River Basin and to Federal agencies on October 8, 1964, for review as required by the Flood Control Act of 1944. Following receipt of comments, the Secretary of the Interior on September 22, 1965, transmitted the report to the President through the Bureau of the Budget. On March 15, 1966, the Secretary of the

The proposed and industrial use in the area will be determined by the
State and existing interests. The area will be managed
in such a way as to ensure the maximum benefit to the State and the
people. The area will be managed by the State and the people.

In the State of New York, the State and the people have the right to
manage the area in such a way as to ensure the maximum benefit to the
State and the people. The area will be managed by the State and the
people. The area will be managed by the State and the people.

CONCLUSIONS

The State of New York has the right to manage the area in such a way
as to ensure the maximum benefit to the State and the people. The
area will be managed by the State and the people.

REFERENCES

In 1956, the State of New York has the right to manage the area in
such a way as to ensure the maximum benefit to the State and the
people. The area will be managed by the State and the people.

The State of New York has the right to manage the area in such a way
as to ensure the maximum benefit to the State and the people. The
area will be managed by the State and the people.

Interior transmitted the report to the House of Representatives with the recommendation that construction of the Dolores Project, Colorado, be authorized.

JUSTIFICATION FOR INVESTIGATION

Maintenance of present levels and future growth of the area's economy is dependent on agriculture, mineral and timber resources, and tourist trade or recreation. Increased production from the irrigable land area is dependent upon a firm water supply. About 47 percent of the irrigable area now has a partial water supply and the remaining area produces only a small part of its full potential. Development of other resources including gas, oil, coal, and timber also depends upon a firm supply of water being available.

The project is one of 25 potential participating projects in the Upper Colorado River Basin that was given priority in the completion of planning reports by the Colorado River Storage Project Act of April 11, 1956 (70 Stat. 105).

The construction, operation, and maintenance of the Dolores Project was authorized under Title V of Public Law 90-537, September 30, 1968 as a participating project under the Colorado River Storage Project Act (70 Stat. 105; 43 U.S.C. 620). The Secretary was directed to proceed as nearly as practicable with construction of the Dolores Project (and the four other Colorado projects) concurrently with the construction of the Central Arizona Project, to the end that such projects shall be completed not later than the date of first delivery of water from said Central Arizona Project: Provided, That an appropriate repayment contract for each said participating project shall have been executed as provided in section 4 of the Colorado River Storage Project Act (70 Stat. 107) before construction shall start on that particular project.

LOCAL SUPPORT

State and local interests have actively supported development of the project. In 1956, local farmers and businessmen from Dove Creek, Cortez, Mancos, and Dolores formed the Dolores River Project Association to stimulate interest in the project. They were also active in establishing the Dolores Water Conservancy District in 1961 to serve as the project administrative and contracting agency. The Southwestern Colorado Water Conservation District, an agency formed to promote water resources development in southwestern Colorado, has worked in support of the project

Director transmitted the report to the Board of Hydrocarbons with the recommendation that construction of the proposed project, including the hydrocarbons, be authorized.

PROJECT/CAUTION FOR THE PROJECT

Construction of proposed project and related growth of the water economy in the region are dependent on water and power resources and related to the project. The proposed project is the first of its kind in the region and a first water supply. About 50 percent of the water supply is from a natural water supply and the remaining 50 percent is from a well field of 100 wells. Development of other resources including gas, oil, coal, and timber also depends upon a first supply of water being available.

The project is one of 15 projects authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project. The project is one of 15 projects authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project. The project is one of 15 projects authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project.

The construction, operation, and maintenance of the proposed project was authorized under Title V of Public Law 92-58, September 30, 1968, as a project of the Colorado River Basin. The project is one of 15 projects authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project. The project is one of 15 projects authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project. The project is one of 15 projects authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project.

LOCAL STUDY

Local and local interests have actively supported development of the project. In 1968, local farmers and businessmen from the local area, including the Colorado River Basin, were authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project. The project is one of 15 projects authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project. The project is one of 15 projects authorized by the Board of Hydrocarbons River Basin and water supply in the construction of the project.

August 1972

and the State of Colorado provided personnel to aid in the completion of the project studies. Formal expressions of support for the project have been made by the Ute Mountain Ute Indian Tribe, the Directors of the Montezuma Valley Irrigation Company, the Dolores Water Conservancy District, and the cities of Dove Creek and Cortez. The Bureau of Indian Affairs made contributions toward project investigations.

ALTERNATIVE CONSIDERATIONS & PLANS:

Several alternative plans are currently being studied under a cooperative effort by various local interests and State and Federal agencies. These include a detailed evaluation of sprinkler irrigation rather than conventional open ditch irrigation.

Additional development of Indian resources is being studied, including expansion of agricultural lands and development of a recreation and fishing reservoir on Navajo Wash near Towaoc. Also included in these studies is the addition of 1,000 acre-feet of municipal, industrial and domestic water to be delivered to Towaoc through project and non-project conveyance facilities.

Under investigation is an expanded municipal and rural water system for the entire two county area of Dolores and Montezuma. A private consulting engineering firm is currently determining quantities and delivery points which will aid in sizing and locating project conveyance facilities.

Several alternatives are being explored which would develop a fishing stream below McPhee. A small reservoir located on Plateau Creek could provide the additional storage needed for the late summer and winter releases below McPhee dam.

Currently being evaluated by Federal and State interests is development of a quality fishing stream and White Water Boaterly below McPhee.

and the State of Tennessee are being prepared to aid in the completion of the project. The project is being completed in order to provide for the future of the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee.

Project Description

The project is being completed in order to provide for the future of the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee.

Additional development of the project is being completed in order to provide for the future of the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee.

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Several alternatives are being explored which would develop a project in the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee.

Currently being evaluated by Federal and State agencies is development of a project in the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee. The project is being completed in order to provide for the future of the State of Tennessee.

PROJECT ECONOMIC IMPACTS

The economic impact from the Dolores Project will be the result of essentially two effects: (1) Construction of the project facilities to store and deliver project water; (2) Increased sales from crops and livestock and expanded business and employment resulting from use of project water.

Figure I illustrates what the economic impact will be from construction of project.

Figure II illustrates what 1,000 acres of irrigated land can do for the Ute Indians and the Montelores area.

WHITE WATER BOATERY

In June 1971 the Colorado White Water Association petitioned the Bureau of Land Management to study a 75-mile reach of the Dolores River below the proposed McPhee Dam to determine the justification of protecting the stream under the Wild and Scenic Rivers Act, P. L. 90-542. The river is already heavily depleted by existing diversions. Although the Dolores Project would further deplete annual runoff, it would be possible, through runoff forecasting and reservoir storage, to control the releases of surplus water as well as to provide nearly as many river boating days with the project as now occur without the project.

Figures III and IV illustrate the variable flow conditions of the river at the McPhee damsite and also the number of boating days which would have occurred historically with and without the Dolores Project.

SCHEDULE

Figure V shows the current planning and construction schedule for the Dolores Project.

PROJECT RIVERINE IMPROVEMENT

The economic impact from the Dolores Project will be the result of essentially two effects: (1) Construction of the project facilities to create and utilize project water; (2) increased water supply and increased and expanded irrigation and other uses of project water.

Figure 1 illustrates what the economic impact will be from construction of project.

Figure 2 illustrates what 1,000 acres of irrigated land can do for the Rio Dolores and the Dolores area.

WHITE WATER RIVER

In June 1951 the Colorado River Water Conservation Committee the Bureau of Land Management to study a 17-mile reach of the Dolores River below the proposed White River dam to determine the feasibility of increasing the stream under the White and Dolores River Act, P. L. 80-562. The river is already heavily loaded by existing diversions. Although the Dolores Project would further deplete stream runoff, it would be possible, through careful planning and economic analysis, to control the release of water from the dam as well as to provide nearly as much water for existing uses as now occur without the project.

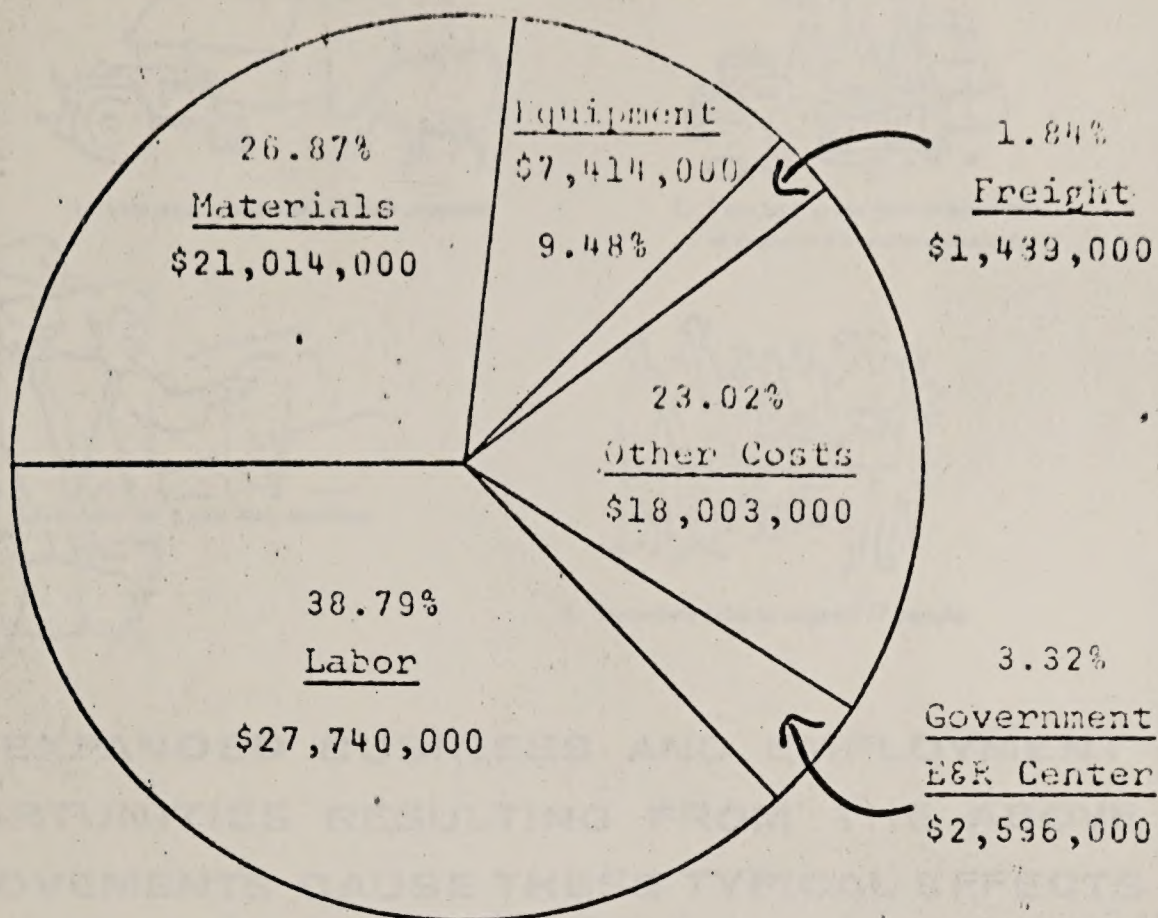
Figure 3 and 4 illustrate the variable flow conditions of the river at the White dam and also the number of existing dams which would have occurred historically with and without the Dolores Project.

CONCLUSIONS

Figure 5 shows the current planning and construction schedule for the Dolores Project.

ECONOMIC IMPACT FROM CONSTRUCTION OF THE DOLORES PROJECT

TOTAL CONSTRUCTION COST \$78,206,000



Materials and Equipment

1. \$11,371,000 will be spent in Colorado

On Site Government and Contract Labor

1. Payroll \$27,740,000
2. Take home pay \$18,586,000
3. Total Household income \$32,000,000 from Direct, Indirect and Induced Effects.

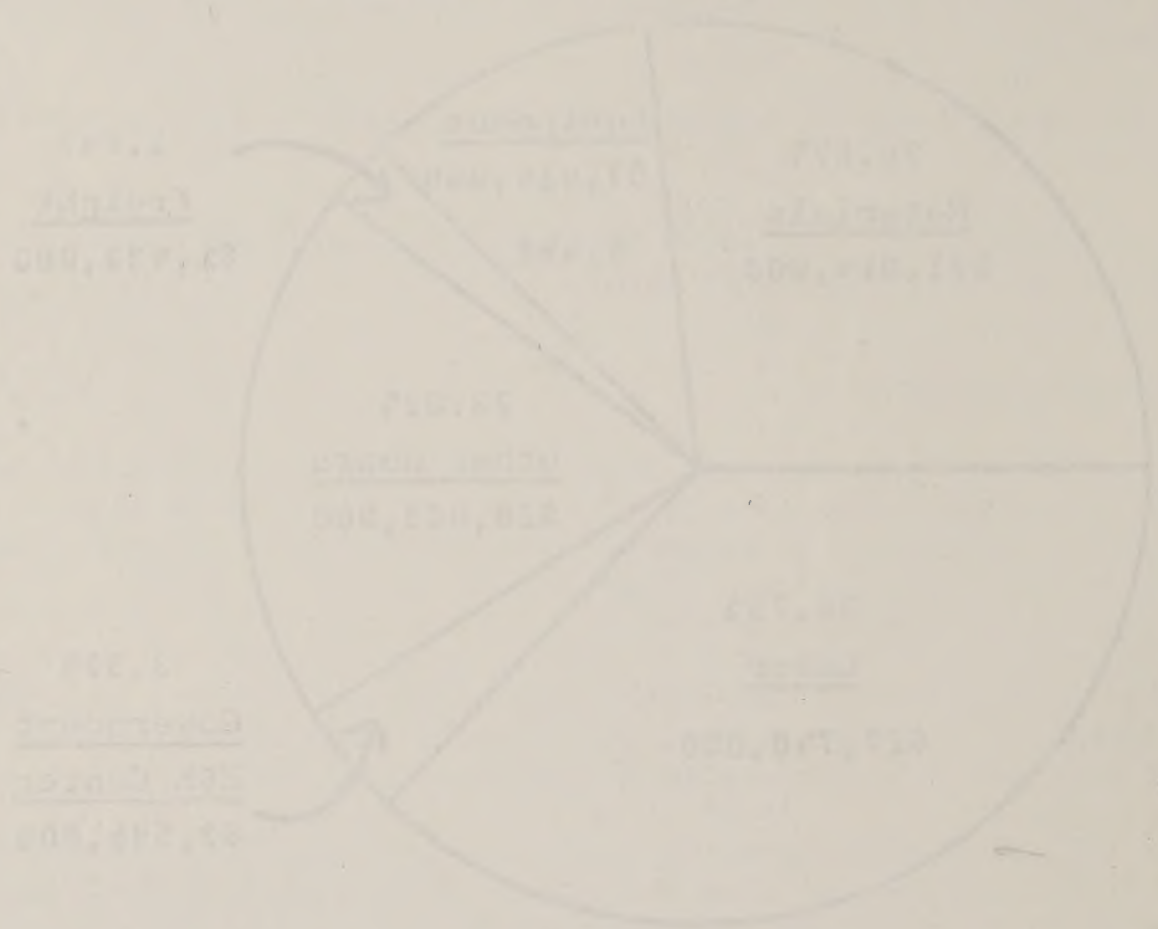
Other Costs

1. \$18,003,000 consists of Land and Rights of Way and Miscellaneous Expenses, much of this will be spent in local area.

6

ECONOMIC ANALYSIS OF THE PROJECT

TOTAL INVESTMENT COSTS

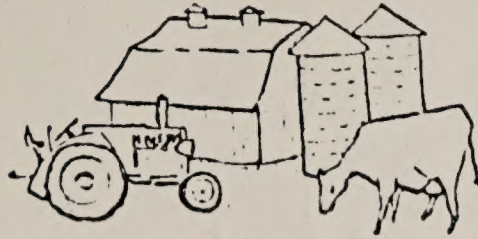


Materials and Equipment
 1. \$41,500,000 will be spent on materials and equipment.

On Site Government and Unallocated
 1. Payroll \$35,700,000
 2. Other costs \$15,200,000
 3. Total Government and Unallocated \$50,900,000

Other Costs
 1. \$7,300,000 consists of land and rights of way and miscellaneous expenses, much of this will be spent in local area.

WHAT 1,000 ACRES OF IRRIGATED FARM LAND MEANS TO A COMMUNITY



1. \$451,662 investment in farm property,



2. \$194,552 gross farm production
of crops and livestock products.



3. Livelihood for 3 new farm families.

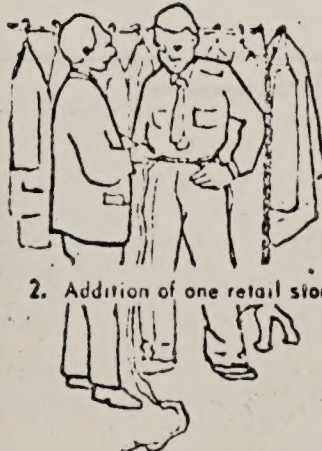


4. Secondary jobs to support 77 people.

THE EXPANDED BUSINESS AND EMPLOYMENT OPPORTUNITIES RESULTING FROM THE ABOVE IMPROVEMENTS CAUSE THESE TYPICAL EFFECTS



1. Sales and servicing of 25 automobiles.



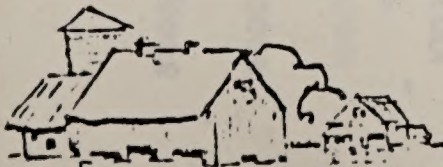
2. Addition of one retail store.



3. Payrolls of \$249,000
in secondary jobs.

4. Expanded market for these products:

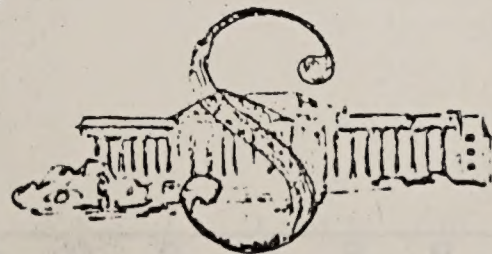
\$27,000 for food
7,700 for apparel
11,900 for general merchandise
6,400 for home furnishings
25,700 for automobiles and supplies
4,400 for drugs
45,300 for unclassified sales



7. Additional county revenues from
tax on farm property, \$6,254



5. Opportunity for 3
professional men.

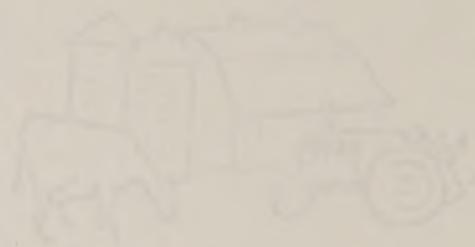


6. Increased State income
and sales tax, \$2,814

WHAT 1,000 ACRES OF IRRIGATED FARM LAND MEANS TO A COMMUNITY



1. Factory and power plant
employing 100 men



2. Automobile and home
for each family



3. School and church
for 100 families



4. Food for 100 families

THE EXPANDED BUSINESS AND EMPLOYMENT OPPORTUNITIES RESULTING FROM THE ABOVE IMPROVEMENTS CAUSE THESE TYPICAL EFFECTS



1. Increase in population
to 1,000 families



2. Increase in business
to 1,000 families



3. Automobile and home
for each family



4. Increase in business
to 1,000 families



5. Increase in business
to 1,000 families

1. Increase in population
to 1,000 families
2. Increase in business
to 1,000 families
3. Increase in business
to 1,000 families
4. Increase in business
to 1,000 families
5. Increase in business
to 1,000 families



6. Automobile and home
for each family

ILLUSTRATION ERRATIC FLOWS OF THE DOLORES RIVER AT MCPHEE

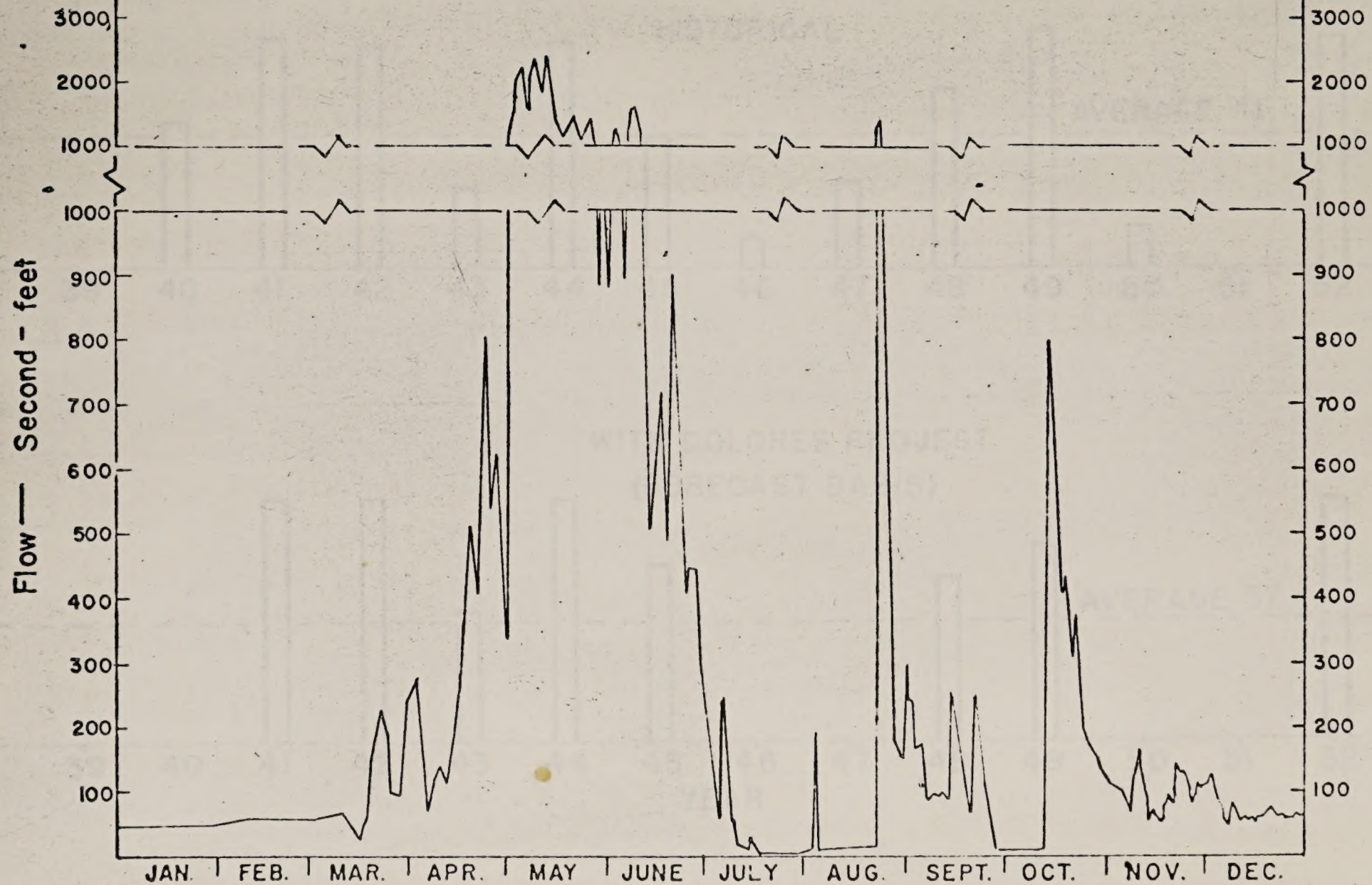
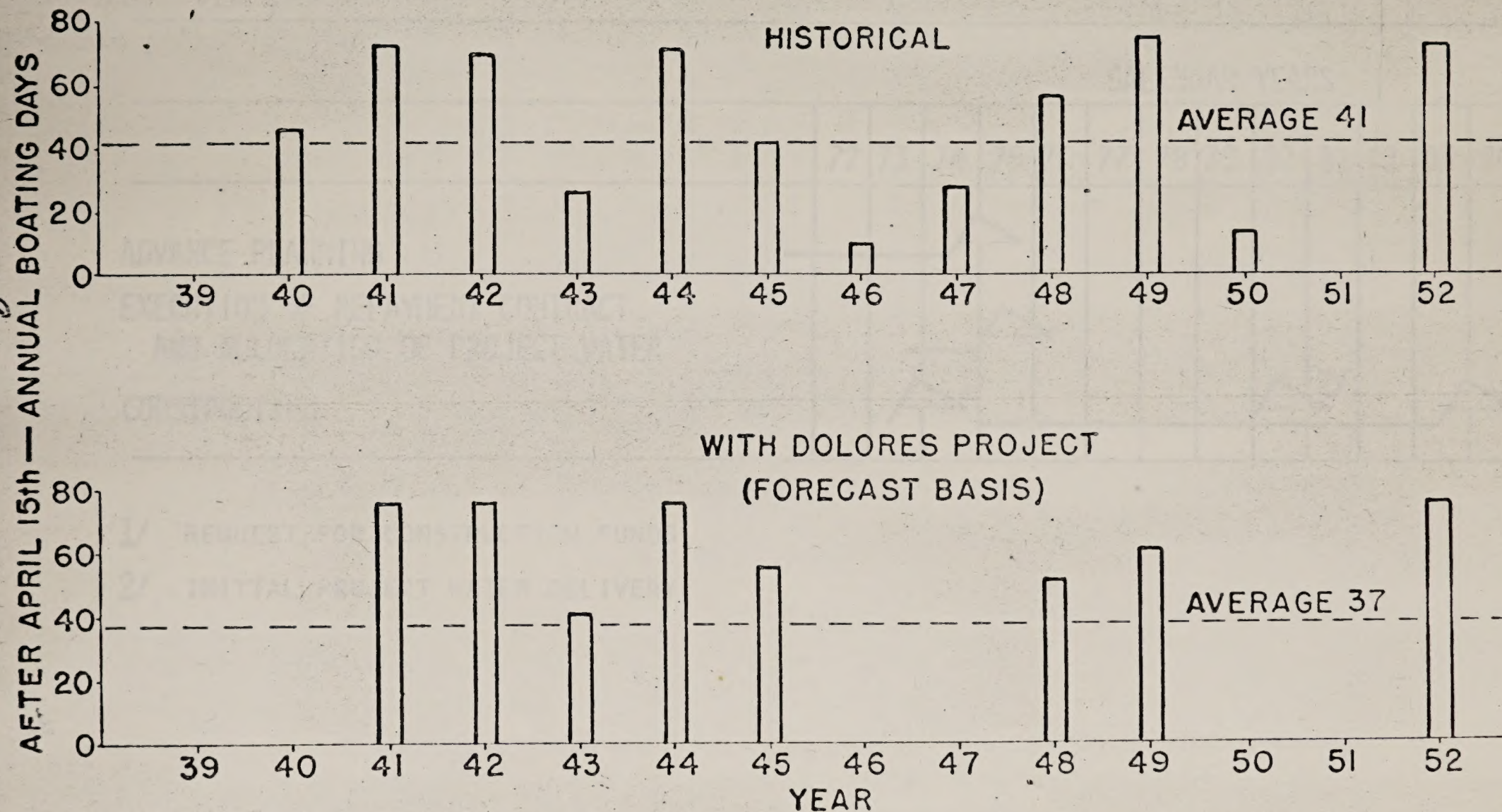


FIGURE III



ИОНТАРИУЛ
ЕНТ 70 2W0LJ CИТАРЯЗ
ДОГОРЕЗ РИВЕР АТ МОБННН

WHITE WATER BOATING — DOLORES RIVER BELOW MCPHEE — 1,000 CFS OR GREATER



RAVIN SAROGOD - SHITAOV RYTAU ETIHV BEGOM MCHREE 1000 CFS OR GREATER



DOLORES PROJECT SCHEDULE

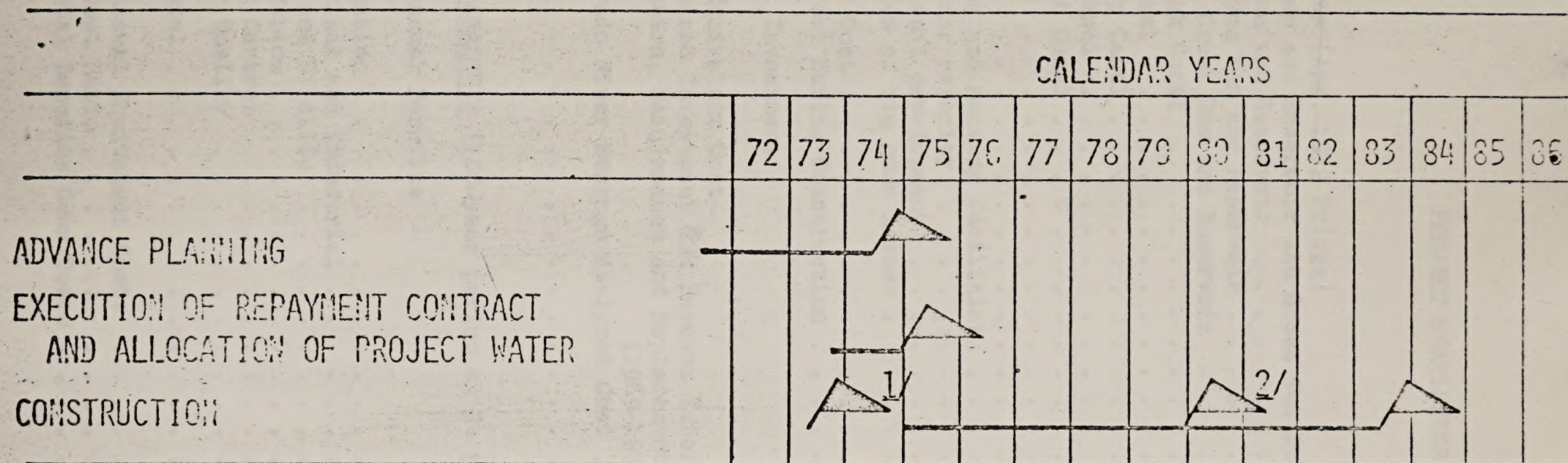


FIGURE 12

August 1972

PROJECT STATISTICS

COSTS

Project Costs (Apr. 1972 Prices)

McPhee Dam and Reservoir and Great Cut Dike	\$33,815,000
Cahone Dam and Reservoir	1,748,000
Ruin Canyon Dam and Reservoir	5,276,000
Monument Creek Dam and Reservoir	3,481,000
Dove Creek Canal	12,947,000
South Canal	882,000
Hovenweep Canal	972,000
Cahone Canal	463,000
Great Cut Canal	2,003,000
Laterals	6,657,000
Drains	937,000
Operating and housing facilities	954,000
Future year capacity	77,000
Recreational development	7,840,000
Mitigation of big game losses	154,000
Total Cost	\$78,206,000
Interest During Construction	5,083,000
Total Investment	\$83,289,000

Annual Equivalent Cost

Amortized Investment @3½ Percent Interest . . .	\$ 2,823,500
Operation, Maintenance and Replacement Costs (1969-1971 prices).	231,000
Colorado River Storage Assigned Cost	174,600
Total	\$ 3,229,100

BENEFIT-COST ANALYSIS (100-year period at 3½ percent interest)

Average Annual Benefits

Irrigation	\$ 4,140,000
Municipal and Industrial	457,500
Fish and Wildlife	61,800
Recreation	538,300
Flood Control	22,000
Water Quality	8,300
Total	\$ 5,227,900

Average Annual Equivalent Costs	\$ 3,229,100
Benefit-Cost Ratio	1.62:1.00
Excess Total Benefits Over Costs	\$ 1,998,800

MUNICIPAL AND INDUSTRIAL WATER (acre-feet)

Cortez Supply	4,900
Dove Creek Supply	<u>1,200</u>
Total.	6,100

M&I Stream Depletion.	3,700
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IRRIGATION:

Project Water Supply (acre-feet).	120,800
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Irrigation Stream Depletion	83,600
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Service area (acres)

Full Service	32,340
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Supplemental Service.	<u>28,660</u>
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Total	61,000
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RECREATION:R E S E R V O I R S

	McPhee	Ruin Canyon	Cahone	Monument Creek
Normal High Water				
Surface Area (acres)	4,320	395	225	190
Elevation (feet)	6,920	6,761	6,823	6,727
Minimum Water				
Surface Area (acres)	2,070	163	37	101
Elevation (feet)	6,855	6,717	6,790	6,708
Average Low Pool (May-Sept)				
Surface Area (acres)	3,520	310	100	140
Elevation (feet)	6,894	6,747	6,803	6,718
Estimated Annual Visitors	109,400	10,000	11,000	9,000
Recreational Value	\$538,400	\$10,700	\$10,450	\$10,080

August 1972

PROJECT FEATURES

Reservoirs	<u>McPhee</u>	<u>Cahone</u>	<u>Ruin Canyon</u>	<u>Monument Creek</u>
Capacity (acre-feet)	364,000	4,340	16,400	5,040
Active	211,500	4,000	12,000	2,700
Inactive	152,500	340	4,000	2,340
Normal Water Surface (feet)	6,920	6,822	6,761	6,727
Surface Area (acres)	4,320	225	395	190
Dams				
Height (feet)	268	75	169	107
Crest Length (feet)	1,300	2,000	2,350	5,000
Crest Width (feet)	30	30	30	30
Type	Compacted Earth	Compacted Earth	Compacted Earth	Compacted Earth
Canals				
		<u>Length (mi)</u>		<u>Initial Capacity</u>
Dove Creek		67.9		520
South		10.2		140
Hovenweep		9.0		90
Cahone		8.9		75
Great Cut		10.0		230
Laterals		140.9		vary
Drains		28.0		vary

HYDROLOGY (Dolores River at McPhee Damsite)

Drainage area (sq.mi.)	827
Estimated virgin flow (ac.ft.)	
Average annual flow--1935-70	350,000
Maximum flow--1941	793,000
Minimum flow--1959	121,300
Estimated historical flow (ac.ft.)	
Average annual flow--1925-70	246,100
Maximum flow--1941	681,800
Minimum flow--1959	33,200

PROJECT SUMMARY

Item	Quantity	Unit Price	Total	Notes
Concrete (cubic yards)	15,000	4.50	67,500	
Rebar (linear feet)	12,000	1.50	18,000	
Formwork (square feet)	4,000	3.00	12,000	
Gravel (cubic yards)	6,000	2.50	15,000	
Asphalt (cubic yards)	2,000	3.50	7,000	
Excavation (cubic yards)	1,000	5.00	5,000	
Backfill (cubic yards)	1,000	3.00	3,000	
Landscaping (linear feet)	100	1.00	100	
Lighting (linear feet)	100	1.00	100	
Drainage (linear feet)	100	1.00	100	
Other (linear feet)	100	1.00	100	
Total			121,600	

HYDROLOGIC (Baltic River at Baltic Dam)

Year	Flow (cfs)	Notes
1950	100,000	Estimated flow (cfs)
1951	120,000	Estimated flow (cfs)
1952	150,000	Estimated flow (cfs)
1953	180,000	Estimated flow (cfs)
1954	200,000	Estimated flow (cfs)
1955	220,000	Estimated flow (cfs)
1956	240,000	Estimated flow (cfs)
1957	260,000	Estimated flow (cfs)
1958	280,000	Estimated flow (cfs)
1959	300,000	Estimated flow (cfs)
1960	320,000	Estimated flow (cfs)
1961	340,000	Estimated flow (cfs)
1962	360,000	Estimated flow (cfs)
1963	380,000	Estimated flow (cfs)
1964	400,000	Estimated flow (cfs)
1965	420,000	Estimated flow (cfs)
1966	440,000	Estimated flow (cfs)
1967	460,000	Estimated flow (cfs)
1968	480,000	Estimated flow (cfs)
1969	500,000	Estimated flow (cfs)
1970	520,000	Estimated flow (cfs)
1971	540,000	Estimated flow (cfs)
1972	560,000	Estimated flow (cfs)
1973	580,000	Estimated flow (cfs)
1974	600,000	Estimated flow (cfs)
1975	620,000	Estimated flow (cfs)
1976	640,000	Estimated flow (cfs)
1977	660,000	Estimated flow (cfs)
1978	680,000	Estimated flow (cfs)
1979	700,000	Estimated flow (cfs)
1980	720,000	Estimated flow (cfs)
1981	740,000	Estimated flow (cfs)
1982	760,000	Estimated flow (cfs)
1983	780,000	Estimated flow (cfs)
1984	800,000	Estimated flow (cfs)
1985	820,000	Estimated flow (cfs)
1986	840,000	Estimated flow (cfs)
1987	860,000	Estimated flow (cfs)
1988	880,000	Estimated flow (cfs)
1989	900,000	Estimated flow (cfs)
1990	920,000	Estimated flow (cfs)
1991	940,000	Estimated flow (cfs)
1992	960,000	Estimated flow (cfs)
1993	980,000	Estimated flow (cfs)
1994	1,000,000	Estimated flow (cfs)
1995	1,020,000	Estimated flow (cfs)
1996	1,040,000	Estimated flow (cfs)
1997	1,060,000	Estimated flow (cfs)
1998	1,080,000	Estimated flow (cfs)
1999	1,100,000	Estimated flow (cfs)
2000	1,120,000	Estimated flow (cfs)
2001	1,140,000	Estimated flow (cfs)
2002	1,160,000	Estimated flow (cfs)
2003	1,180,000	Estimated flow (cfs)
2004	1,200,000	Estimated flow (cfs)
2005	1,220,000	Estimated flow (cfs)
2006	1,240,000	Estimated flow (cfs)
2007	1,260,000	Estimated flow (cfs)
2008	1,280,000	Estimated flow (cfs)
2009	1,300,000	Estimated flow (cfs)
2010	1,320,000	Estimated flow (cfs)
2011	1,340,000	Estimated flow (cfs)
2012	1,360,000	Estimated flow (cfs)
2013	1,380,000	Estimated flow (cfs)
2014	1,400,000	Estimated flow (cfs)
2015	1,420,000	Estimated flow (cfs)
2016	1,440,000	Estimated flow (cfs)
2017	1,460,000	Estimated flow (cfs)
2018	1,480,000	Estimated flow (cfs)
2019	1,500,000	Estimated flow (cfs)
2020	1,520,000	Estimated flow (cfs)
2021	1,540,000	Estimated flow (cfs)
2022	1,560,000	Estimated flow (cfs)
2023	1,580,000	Estimated flow (cfs)
2024	1,600,000	Estimated flow (cfs)
2025	1,620,000	Estimated flow (cfs)
2026	1,640,000	Estimated flow (cfs)
2027	1,660,000	Estimated flow (cfs)
2028	1,680,000	Estimated flow (cfs)
2029	1,700,000	Estimated flow (cfs)
2030	1,720,000	Estimated flow (cfs)
2031	1,740,000	Estimated flow (cfs)
2032	1,760,000	Estimated flow (cfs)
2033	1,780,000	Estimated flow (cfs)
2034	1,800,000	Estimated flow (cfs)
2035	1,820,000	Estimated flow (cfs)
2036	1,840,000	Estimated flow (cfs)
2037	1,860,000	Estimated flow (cfs)
2038	1,880,000	Estimated flow (cfs)
2039	1,900,000	Estimated flow (cfs)
2040	1,920,000	Estimated flow (cfs)
2041	1,940,000	Estimated flow (cfs)
2042	1,960,000	Estimated flow (cfs)
2043	1,980,000	Estimated flow (cfs)
2044	2,000,000	Estimated flow (cfs)
2045	2,020,000	Estimated flow (cfs)
2046	2,040,000	Estimated flow (cfs)
2047	2,060,000	Estimated flow (cfs)
2048	2,080,000	Estimated flow (cfs)
2049	2,100,000	Estimated flow (cfs)
2050	2,120,000	Estimated flow (cfs)
2051	2,140,000	Estimated flow (cfs)
2052	2,160,000	Estimated flow (cfs)
2053	2,180,000	Estimated flow (cfs)
2054	2,200,000	Estimated flow (cfs)
2055	2,220,000	Estimated flow (cfs)
2056	2,240,000	Estimated flow (cfs)
2057	2,260,000	Estimated flow (cfs)
2058	2,280,000	Estimated flow (cfs)
2059	2,300,000	Estimated flow (cfs)
2060	2,320,000	Estimated flow (cfs)
2061	2,340,000	Estimated flow (cfs)
2062	2,360,000	Estimated flow (cfs)
2063	2,380,000	Estimated flow (cfs)
2064	2,400,000	Estimated flow (cfs)
2065	2,420,000	Estimated flow (cfs)
2066	2,440,000	Estimated flow (cfs)
2067	2,460,000	Estimated flow (cfs)
2068	2,480,000	Estimated flow (cfs)
2069	2,500,000	Estimated flow (cfs)
2070	2,520,000	Estimated flow (cfs)
2071	2,540,000	Estimated flow (cfs)
2072	2,560,000	Estimated flow (cfs)
2073	2,580,000	Estimated flow (cfs)
2074	2,600,000	Estimated flow (cfs)
2075	2,620,000	Estimated flow (cfs)
2076	2,640,000	Estimated flow (cfs)
2077	2,660,000	Estimated flow (cfs)
2078	2,680,000	Estimated flow (cfs)
2079	2,700,000	Estimated flow (cfs)
2080	2,720,000	Estimated flow (cfs)
2081	2,740,000	Estimated flow (cfs)
2082	2,760,000	Estimated flow (cfs)
2083	2,780,000	Estimated flow (cfs)
2084	2,800,000	Estimated flow (cfs)
2085	2,820,000	Estimated flow (cfs)
2086	2,840,000	Estimated flow (cfs)
2087	2,860,000	Estimated flow (cfs)
2088	2,880,000	Estimated flow (cfs)
2089	2,900,000	Estimated flow (cfs)
2090	2,920,000	Estimated flow (cfs)
2091	2,940,000	Estimated flow (cfs)
2092	2,960,000	Estimated flow (cfs)
2093	2,980,000	Estimated flow (cfs)
2094	3,000,000	Estimated flow (cfs)
2095	3,020,000	Estimated flow (cfs)
2096	3,040,000	Estimated flow (cfs)
2097	3,060,000	Estimated flow (cfs)
2098	3,080,000	Estimated flow (cfs)
2099	3,100,000	Estimated flow (cfs)
2100	3,120,000	Estimated flow (cfs)

APPENDIX G

DOLORIS RIVER

Public Comment

Stamp: A T Temp Int
Dist. Mgr
Chief Ad
Clerk
Clerk

RESOLUTIONS - SAN MIGUEL WOOLGROWERS

RECD. MAR 9 1971
on public lands necessary for good range management and to have healthy game herds and flocks; and whereas, we realize that pressure groups are questioning NRS and Wildlife San Juan program and documented losses are needed to justify control. It is recommended by the San Miguel Woolgrowers that the loss report forms should be simple and not be pinpointed to section, etc. - just drainages or allotment names or numbers.

No. 2 Whereas, it has been shown that grazing fees on Federal Range have been shown to be comparable to private range; therefore, be it resolved that the San Miguel Woolgrowers Association oppose any increase in grazing fees on Federal Range. Be it further resolved that copies be sent to the entire Congressional delegation.

No. 3 Whereas, the San Miguel Woolgrowers Association continues to endorse the principle of the multiple use concept; therefore, be it resolved that the San Miguel Woolgrowers oppose establishment or expansion of tracts of land for exclusive use such as wild rivers, wilderness areas, and wildlife refuges.

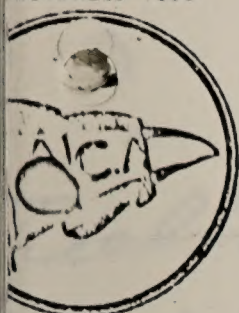
No. 4 Whereas, so many fibers and foods are being made as imitations; therefore, be it resolved by the San Miguel Woolgrowers Association that strict labeling, stating contents and country of origin for food and fiber products should be made.

No. 5 Whereas, the San Miguel Woolgrowers Association endorses the principal of a sound wildlife management program which maintains the ecological balance of nature; and whereas, continuous restriction of predator control programs will upset the ecological balance; therefore, be it resolved by the San Miguel Woolgrowers Association that restriction of the predator control programs be discontinued for the benefit of not only livestock but sportsmen and nature lovers alike.

No. 6 Whereas, there is under consideration a regulation to charge a Right-of-Way fee for ditches conveying water, which has been constructed on public lands; and whereas, most of these ditches were granted right-of-way by the administrators of public lands; and therefore, be it resolved that the San Miguel Woolgrowers Association be opposed to such a ditch Right-of-Way fee on public lands; and be it further resolved, that a copy of this resolution be mailed to the Administrative offices of the Forest Service and Bureau of Land Management in Colorado and the Colorado Congressional delegation.

No. 7 Whereas, many livestock users of public lands have built and are building fences, stock ponds and other valuable conservation improvements on public lands; and whereas, these improvements represent considerable financial and labor investment; and whereas, a few agencies of government, notably the Defense Department, do make compensatory payments for a reasonable value for the loss of the use of such lands when these lands are reclassified and transferred to the singular use of these agencies; be it therefore resolved that whenever any public lands which have historically and habitually been used for agricultural and livestock production, and which constitutes a part of the users year around agricultural and livestock operations, are reclassified and the use thereof transferred to any Federal, State, County, or City agency, the legal user or permittee shall be compensated for the reasonable value of improvements thereon.

ORGANIZED 1880



American Canoe Association

Member: INTERNATIONAL CANOE FEDERATION • AMATEUR ATHLETIC UNION
THE UNITED STATES OLYMPIC ASSOCIATION

Cooperating with: CANADIAN CANOE ASSOCIATION • AMERICAN RED CROSS
BOY SCOUTS OF AMERICA • GIRL SCOUTS, INC.

May 28, 1971

NATIONAL CAMP
Gar Island
Montroque, Ont., Canada

Commodore
THOMAS COOPER
400 Garfield Street
Denver, Colorado 80206

President
Board of Governors
WILLIAM A. APFELBECK
15 Beacon Avenue
New Haven, Conn. 06512

Treasurer
EVERETT P. THOMAS
P. O. Box 144
Glendale, Rhode Island 02826

Secretary
DORIS C. COUSINS
400 Eastern Street
New Haven, Conn. 06513

Mr. E. I. Rowland
Colorado State Director
Bureau of Land Management
14023 Federal Building
1961 Stout Street
Denver, Colorado 80202

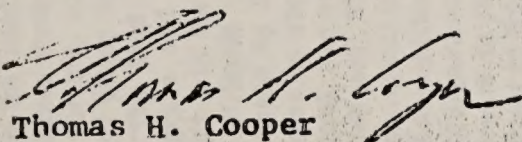
Dear Mr. Rowland:

There is a rapidly growing group of Americans that treasures the few remaining rivers unspoiled by the intrusion of civilization. It is extremely important to this group that the unspoiled state of these rivers be preserved.

The American Canoe Association strongly endorses the current campaign to classify the Dolores River as a wild river from Cahone to Bedrock under the National Wild Rivers Act.

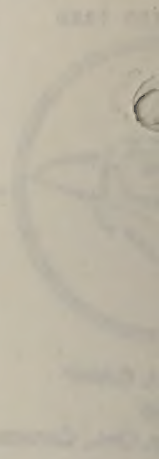
Very truly yours,

AMERICAN CANOE ASSOCIATION


Thomas H. Cooper
Commodore

THC:jp

CC: Brent Jensen
Bureau of Land Management
Montrose, Colorado



American Game Association

OFFICE: INTERNATIONAL GAME ASSOCIATION - AMERICAN GAME ASSOCIATION
THE INTERNATIONAL GAME ASSOCIATION - AMERICAN GAME ASSOCIATION
OFFICE: INTERNATIONAL GAME ASSOCIATION - AMERICAN GAME ASSOCIATION
OFFICE: INTERNATIONAL GAME ASSOCIATION - AMERICAN GAME ASSOCIATION

May 20, 1911

Mr. E. J. Bland
Colorado State Game
Department of Land Management
1001 Second Street
Denver, Colorado 80202

Dear Mr. Bland:

There is a rapidly growing group of sportsmen in
Colorado the few remaining rivers controlled by
the interests of civilization. It is necessary
to protect to this group the unspoiled scenic
of these rivers as preserved.

The American Game Association strongly supports
the current campaign to preserve the Holston River
as a wild river from change to another state the
National Wild Rivers Act.

Very truly yours,

AMERICAN GAME ASSOCIATION

Thomas E. Cooper
President

CC: State Game
Department of Land Management
Denver, Colorado

TELLURIDE TIMES JUNE 3, 1971

re:
Escalante
Trail

Dolores As 'Scenic River' Recommended

The 93-mile-long Dolores River Canyon will be up for study as a prime recreation area by the Bureau of Land Management (BLM) if the recommendations of the San Miguel County Planning Committee are followed.

Bill Reynolds and Brent Jensen of the Montrose office of BLM outlined the prospects for recreation on a section of the river at a meeting of the Planning Commission last week in Norwood. BLM is in the process of developing a land use plan for 455,000 acres of public land in the west end of Dolores, San Miguel and Montrose counties. Reynolds and Jensen were getting comments on the various aspects of the plan from the Planning Commission.

In addition to questions on the Dolores Canyon, the BLM officials also asked opinions on these matters:

- Should power site withdrawals on the San Miguel River be lifted? Back in the 1920's the Bureau of Reclamation requested that certain lands along the river be withdrawn for study as possible sites for power dams. These withdrawals have never been cancelled. (Plan-

ning Commission members recommended that the withdrawals not be lifted until a thorough study is made of each site).

- Should pinon-juniper chaining be continued on public lands? This is a method of clearing public lands in the west by pulling a ship's anchor through pinon-juniper forests, uprooting the trees and piling them in windrows. The land is then seeded to grass and forage.

Jensen said that the carrying capacity of lands in this area is increased by the process from zero to about one animal for each five acres for one month each year. The practice is a controversial one, however. Environmentalists and some wildlife organizations say that the increase in forage is offset by damage to the appearance of the land, increased erosion, and an upset in the balance of nature. (Planning Commission members recommended that the chaining practice be continued).

- Should Atomic Energy Commission withdrawals of uranium lands be released? This question has been argued for years in the Uranium Mineral Belt and positions have been

pretty well clarified. It is generally agreed that the federal lands should be opened to leasing, but the controversy comes about over the manner of leasing. Small independent miners are afraid that if certain protections are not built into the program the large milling companies will gobble up all the leases. (The Planning Commission recommended that the land be leased, but the manner must still be determined.)

- Should BLM undertake to protect historic sites in the area, such as Indian writings and ruins? (The Planning Commission agreed, but suggested that at this time it might be best not to publicize the locations of these sites until some group is prepared to give them adequate protection).

- Should a scattering of school sections in the area be grouped together, by land exchanges, in order that they might be better administered? (Be careful about carrying out such exchanges said the Planning Commission, since many ranchers use the school lands as base areas for ranches.)

The discussion of the Dolores River Canyon revolved around

a proposal to designate that section of the river as either a Wild River, Scenic River, or recreational stream. Jensen pointed out that the Dolores River Canyon is the last remaining "desert river" in the country now that Glen Canyon has been flooded by the Glen Canyon dam on the Colorado River in southeastern Utah. The nation's "river rats" would like to see the Dolores set aside as the last one of its kind. However, Jensen reminded the planning commission that the Dolores Project, authorized by Congress and now in the planning stages, would tame the river to a point where it would not qualify as a Wild River. It not qualify as a Wild River. It would still qualify as a Scenic River, he said, or certainly as a recreational stream, the lowest classification for a river insofar as a tourist is concerned. (The Planning Commission recommended that BLM carry out a study leading to a designation as either a Scenic River or recreational stream.)

The commission also agreed that the Escalante Trail should be marked as it traverses the

West End. This is the trail followed by the two Spanish priests, Dominguez and Escalante, as they explored the Four Corners country in the year 1776.

The Montrose office of the BLM is now conducting a study of public lands in the San Miguel Basin which would lead to a master plan for the whole basin within about two years. Some of the public lands come as close to Telluride as the foot of Keystone Hill.

Members of the San Miguel County Planning Commission attending the meeting were Marion Zadra, chairman, Richard Stevens, secretary, Harvey Young, and Glen Ruffe. Vice chairman Francis Vela was absent on a trip to California. Also attending the meeting were County Commissioner Dwight Oliver, sitting in ex officio; Roy Anderson, a member of the Telluride Planning Commission; and County Agent Bill Raley.

Commission members briefly discussed the adoption of the master plan and corresponding zoning for the land west of town owned by Idaho Mining Co., but no action was taken.

JUNE 9, 1971

'Wild River' Study Urged for Dolores

A study of the Dolores River for possible inclusion in the nation's Wild and Scenic Rivers system was recommended by the Montrose County Public Land Classification Committee here last night.

The committee met to discuss planning problems in the west end of the county with Brent Jensen, BLM's San Miguel Area Manager.

Marking of the route traveled by the Dominguez-Escalante expedition in 1776 was approved and a possible cooperative State Historical Society-Bureau of Land Management effort to monument some of the features of the route was suggested.

Archeological sites along the Dolores River should be identified and marked, and a long-range inventory made of archeological sites, the committee said.

Chaining of pinyon-jumper elsewhere in the county should continue where needed, but under careful restriction, the committee indicated.

Chaining should be in irregular patterns away from roads.

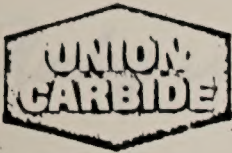
draws and canyon rims, and each proposed chaining project reviewed by interested citizens, the committee stated.

They favored review of power site withdrawals to determine if the withdrawals are still needed. They suggested that proposed uranium lease areas be mined with a minimum of surface disturbance and with rehabilitation of the surface after mining.

The study of the wild or scenic qualities of the Dolores River would cover the area from Bedrock in Paradox Valley south to near the site of proposed McPhee Dam below Dolores. Different classifications could be applied to different stretches of the river depending on features and the lack or presence of development.

The committee, chaired by Ed Hofmann, was appointed by the Montrose County Board of Commissioners in 1966 to guide land classification and planning efforts on public domain land in the County.

The next meeting with no date set, is expected to update earlier planning efforts along the Gunnison Gorge east of town.



UNION CARBIDE CORPORATION
MINING AND METALS DIVISION

P. O. BOX 1049, GRAND JUNCTION, COLORADO 81501

June 9, 1971

Mr. Robert E. Anderson
United States Department of the Interior
Bureau of Land Management
P. O. Box 1269
Montrose, Colorado 81401

Emp.	Emp.	Emp.
Dist. Mgr.	Chief PM	
Chief Ad.	Chief CP	
Clerk	Range Sn	
Clerk	Forest	
REC'D. JUN 10 1971		AMT. PIST.
Eng.	Realty S.	
Boyle	WAS	
Cannon	Wildlife	
McIntosh	San Juan	
Sandquist	Deadline	

Dear Mr. Anderson:

This is in reply to your letter of May 21, 1971 concerning land use proposals.

1 - Proposed Special Area #1 - Dolores Recreation River

We would participate in an on-the-ground review.

We have data on the canyon and its resources which should be considered.

A statement concerning the query is in the process of preparation but is not yet finished. It will be submitted in the next few days.

Suggestions on a feasibility study would be better formulated after the on-the-ground review.

2 - Proposed Special Area #2 - Anasazi Archeological Area

We prefer alternate No. 1.

The alternate No. 1 seems to us to be the best method of protecting valuable sites while permitting multiple use for the greatest good for the greatest number of the public.

We have no data on the area.

No further statement will be made at this time but might be forthcoming after we participate in an on-the-ground review.

3 - Proposed Special Area #3 - Weber-Menefee Mountains Primitive Area

We would participate in an on-the-ground review.

We have no data on resources on the area.

UNION CARBIDE CORPORATION
MINING AND METALS DIVISION
P.O. BOX 1000, DENVER, COLORADO 80201



June 1, 1971



Mr. Robert E. Anderson
United States Department of the Interior
Bureau of Land Management
P.O. Box 1187
Denver, Colorado 80401

Dear Mr. Anderson:

This is in reply to your letter of May 11, 1971 concerning land use proposals.

1 - Proposed Special Area #1 - Dolores River

We would participate in an on-the-ground review.

We have data on the canyon and the resources which should be considered.

A statement concerning the party is in the process of preparation. It is not yet finished. It will be submitted in the near future.

Suggestions as to the policy study would be better formulated after the on-the-ground review.

2 - Proposed Special Area #2 - Grand Staircase

We would participate in 1.

The statement No. 1 refers to us as the lead agency of conducting biological and other studies which are for the general good of the present and future of the public.

We have no data on the area.

No further statement will be made at this time but might be forthcoming after we participate in an on-the-ground review.

3 - Proposed Special Area #3 - Upper-Middle Sonoran Desert

We would participate in an on-the-ground review.

We have no data on resources on the area.

Rocky Mountain Oil and Gas Association

June 9, 1971

Ken Monroe, Mgr.
Colorado-Nebraska Div.
Phone 825-2259
Petroleum Club Building
Denver, Colorado 80202

Mr. Ken Monroe
Rocky Mountain Oil and Gas Association
940 Petroleum Club Building
Denver, Colorado 80202

Dear Ken:

I have reviewed the five proposals for nine public domain planning units.

Proposals 1, 2 and 3 concern areas where there has been exploration for oil and gas in the past and some production. These areas have potential for future exploration for oil and gas. This is generally recognized in the material submitted. Proposals 4 and 5 concern areas where there has been little exploration for oil and gas. This is not to say that they are valueless for such exploration.

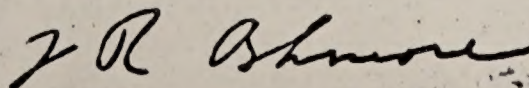
The proposals cover from 21,000 to 158,000 acres with no acreage stated for some.

The areas under consideration have numerous Indian ruins which are of archaeological value. The area is an historic one and has great potential for recreation. I am not convinced, however, that these values cannot be protected by lease stipulations. I believe mineral leasing should be barred, not from general areas, but from specific sites and that these should be relatively small, covering only the specific ruin, for example. I see no reason why oil and gas exploration activities cannot be conducted with either a minimum or no harm to the environment with proper planning, but I believe this should be the answer given as our reaction to the proposals.

The oil and gas industry has demonstrated that it can carry on exploration in highly urban areas and it certainly should be able to explore in the areas the subject of these proposals.

In addition, we should be represented in any public reviews and should participate in exercising our responsibility for supplying the nation's energy. I'll help.

Very truly yours,



T. R. Ashmore.

Wilderness Workshop

June 10, 1971

Mr. Robert E. Anderson, District Manager
Bureau of Land Management
Box 1269
Montrose, Colorado 81401

Mr. Tolson		Mr. Mohr		Mr. Casper		Mr. Callahan		Mr. Conrad		Mr. Felt		Mr. Gale		Mr. Rosen		Mr. Sullivan		Mr. Tavel		Mr. Trotter		Tele. Room		Mr. Holmes		Miss Gandy	
REC'D. JUN 14 1971												USDI-BLM															
Mr. Egan		Mr. Galt		Mr. Harbo		Mr. Hendon		Mr. Jones		Mr. Keith		Mr. Lester		Mr. Quinn		Mr. Nease		Mr. Parsons		Mr. Rasmussen		Mr. Tamm		Mr. Walters		Miss Holmes	
Della												Montrose															
Gunnison												San Juan															
Montrose												San Juan															
San Juan												San Juan															

Dear Bob:

Looks like I won't get to Montrose soon after all, so I will give you my comments on the five land use proposals in writing. I look forward to getting into the office this summer and learning more about all of the areas.

The Wilderness Workshop definitely supports land use studies for each of the five areas under consideration. We are especially interested in numbers one through four.

We would like very much to participate in on the ground surveys of these areas and will welcome any other opportunities to become better acquainted with the resources and problems involved. Please let me know when you make plans for field trips or public briefings.

I am afraid that at this point I do not have much specific information on any of the areas. A number of our cooperators are working on a couple of these areas and I am trying to get from them what information they may have.

I know the Dolores River is becoming very popular with wild river boaters. Quite a few people from this area go all the way down there every year. I imagine the BLM is in contact with the Colorado White Water Association, but, if not, I suggest contacting Dr. Henry Toll, Jr., 750 Vine Street, Denver, Colorado 80206. We have long supported a wild river designation for the Dolores.

The Workshop has little knowledge of the area which is proposed as an archeological area. With the rapidly growing demands placed on Mesa Verde, it would seem that an area which could handle some of the visitor load in this area would be highly desirable. We feel that alternative #2 is probably the best use of the area.

Wilderness Workshop

June 18, 1971

Mr. Robert E. Anderson, District Manager
Bureau of Land Management
Box 1500
Montrose, Colorado 81401

Dear Bob:

Looks like I won't get to Montrose soon after all, so I will
give you my comments on the five areas in writing.
I look forward to getting into the office this summer and
leaving more about all of the areas.

The Wilderness Workshop definitely supports and has studies
for each of the five areas under consideration. We are
especially interested in studies on through four.

We would like very much to participate in on the ground
surveys of these areas and will welcome any other opportunities
to become better acquainted with the resources and problems
involved. Please let me know when you make plans for field
trips or public hearings.

I am afraid that at this point I do not have much specific
information on any of the areas. A number of our cooperators
are working on a couple of these areas and I am trying to get
from them what information they may have.

I know the Palmer River is becoming very popular with
river boaters. Quite a few people from this area go all the
way down there every year. I think the BLM is in contact
with the Colorado State Water Association, but, if not, I
suggest contacting Dr. Henry Tall, Jr., 750 Vine Street,
Denver, Colorado 80202. We have long supported a wild river
designation for the Palmer.

The Workshop has little knowledge of the area which is proposed
as an archaeological area. With the rapidly growing demands
placed on Mesa Verde, it would seem that an area which could
handle some of the visitor load in this area would be highly
desirable. We feel that alternative #2 is probably the best
use of the area.

Wilderness Workshop

Robert E. Anderson

June 10, 1971

Page Two

I do not know anything about the Weber-Menefee Mountains area either. I know a few people down that way who should be able to provide some input.

The Little Dominguez is an ecological type that we would really like to see given Primitive Area protection. We have "Dominguez Creek de facto area" on our inventory map, but it appears that the Little Dominguez is the true wilderness in the region. We will do everything we can to help with this.

We would also be glad to do what we can to help on the Dominguez Reservoir Scenic Buffer.

I realize this doesn't do much for you but I will do my best to round up more specifics.

Thanks for the opportunity to comment on these proposals. I hope to see you this summer.

Best regards,

John

John Barker
Secretary



UNIVERSITY OF COLORADO
ARCHAEOLOGICAL RESEARCH CENTER
P.O. Box 67
MESA VERDE NATIONAL PARK
COLORADO 81330

A	I	Emp.	Int.	A	I	Emp.	Int.
		Dist. Mgr.				Chief PM	
		Chief Ad.				Chief OP	
		Clerk				Range &	
		Clerk				Forest R	
REC'D. USDI-BLM				JUN 15 1971			
12 June				Deadline			
		Engr				Wildlife	
		Drill				San Juan	
		Munnison					
		Montrose					
		San Miguel					

Mr. Robert E. Anderson
Bureau of Land Management
P.O. Box 1269
Montrose, Colorado 81401

Dear Mr. Anderson:

I am in receipt of the proposals for special land use in southwestern Colorado and have the following observations:

1. Delores Recreation River---It is a fine idea to segregate the Delores River canyon from mineral entry. The area in question should be inventoried for prehistoric and historic sites. The most feasible action should be taken, whether it be on the Secretarial or Congressional level. We will be glad to assist in archaeological inventory of the area, but do not have any information which is pertinent at the present time.
2. Anasazi Archaeological Area---Alternatives 1, 2, and 3 are all perhaps feasible. The best is probably the alternative which could be obtained the quickest. Actually, I endorse ALL the alternatives. We DO have data on the area and trust that the yearly inventory reports we have submitted are useful. Also, the five-year summary prepared by Daniel W. Martin should be useful in this area. We would take part in further evaluation or on-the-ground inspection.
3. Weber-Menefee Mountains Primitive Area---A primitive area here is much better than the one discussed within Mesa Verde National Park. Our 1970 archaeological survey report indicates that there is little archaeological material in this area.
4. Little Dominguez Roadless-Primitive Area---The area should be inventoried for prehistoric and historic site locations. We would participate in this project.
5. Dominguez Reservoir Scenic Buffer---If this project becomes imminent, we would also participate in determining the archaeological potential of the area.

I am very glad to learn of the interest by the BLM in protecting the areas designated in these proposals. Perhaps we can speak further about them at the interagency meeting which I understand is scheduled for 30 July.

Sincerely yours,

David A. Breternitz

David A. Breternitz
Director, Mesa Verde Research Center



UNIVERSITY OF COLORADO
ARCHAEOLOGICAL RESEARCH CENTER
700, Box 67
Boulder, Colorado 80502
EDUCATION 1118

Mr. Robert E. Anderson
Bureau of Land Management
P.O. Box 1569
Boulder, Colorado 80502

Dear Mr. Anderson:

I am in receipt of the proposal for special land use in southeastern Colorado and have the following observations:

1. Bolson River--It is a fine idea to designate the Bolson River canyon as a natural area. The area in question should be inventoried for prehistoric and historic sites. The most feasible action should be taken whether it be on the National or State level. We will be glad to assist in archaeological inventory of the area, but do not have any information which is pertinent to the present plan.

2. Ancient Archaeological Area--Designated 1, 2, and 3 are all portions of the same area. The best is probably the alternative which could be obtained as a natural area. I understand all are alternatives. We do have data on the area and trust that the present inventory report we have submitted are useful. A full, five-year inventory report by David W. Brown should be useful in this area. We would like to have further evaluation of archaeological resources.

Under the National Monument Initiative 4 area--A primitive area is in each corner of the area designated with the area National Park. Our 1970 archaeological survey report indicates that there is little archaeological material in this area.

3. Little Thompson National Monument--The area should be inventoried for prehistoric and historic sites. We would participate in this project.

4. Dinosaur Research Area--It is a fine idea to designate the area as a natural area. The area in question should be inventoried for prehistoric and historic sites. The most feasible action should be taken whether it be on the National or State level. We will be glad to assist in archaeological inventory of the area, but do not have any information which is pertinent to the present plan.

I am very glad to hear of the interest by the BLM in protecting the area designated in these proposals. Perhaps we can agree further upon the area the inventory report which I understand is submitted for the area.

Sincerely yours,

David A. Brown

David A. Brown
Director, State Parks Research Center

June 14, 1971

Mr. Robert E. Anderson
District Manager
Bureau of Land Management
P.O. Box 1269
Montrose, Colorado 81401

A	I	Emp.	Ipl.	A	I	Emp.	Int.
		Dist. Mgr.				Chief AM	
		Chief Ad.				Chief CP	
		Clerk				Range R.	
		Clerk				Forest R.	
REC'D. USDI-BLM				JUN 15 1971			
		Eng.				Realty S.	
		Dolly				MRS	
		Garrison				Wildlife	
		Montrose				San Juan	
		San Miguel				Deadline	

Dear Bob:

The Wilderness Society appreciates the opportunity to take part in the land-use planning as proposed in your letter of May 21, 1971.

In reply to your questions concerning the proposed special management areas:

I. Dolores Recreation River

1. The Wilderness Society will be happy to participate in an on-the-ground review of this area.
2. Data on the canyon and its resources are being compiled by The Wilderness Society and will be made available to the Bureau of Land Management.
3. The Wilderness Society encourages the concept of a Dolores Recreation River and urges that the study include at least the roadless areas downstream to the junction of the Dolores and Colorado Rivers.
4. The Bureau of Outdoor Recreation has produced some excellent feasibility studies that we feel are first-rate models.

II. Anasazi Archeological Area

1. The Wilderness Society prefers, as a final solution, Alternate No. 1. However, as an interim solution more quickly achieved, Alternate No. 2 is highly recommended. Alternate No. 3 would perhaps give more certain protection, but to a smaller area, no doubt, and at a much later time. These sites urgently need protection.

June 18, 1971



Mr. Robert E. Anderson
District Manager
Bureau of Land Management
P.O. Box 1254
Montrose, Colorado 81401

Dear Bob:

The Wilderness Society appreciates the opportunity to take part in the land-use planning as proposed in your letter of May 21, 1971.

In reply to your questions concerning the proposed special management areas:

I. Dolores Restoration River

1. The Wilderness Society will be happy to participate in an on-the-ground review of this area.
2. Data on the Canyon and its resources are being compiled by The Wilderness Society and will be made available to the Bureau of Land Management.
3. The Wilderness Society encourages the concept of a Dolores Restoration River and hopes that the study includes at least the roadless areas downstream to the junction of the Dolores and Colorado Rivers.
4. The Bureau of Outdoor Recreation has produced some excellent feasibility studies that we feel are first-rate models.

II. Grand Archeological Area

1. The Wilderness Society prefers, as a final solution, Alternative No. 1. However, as an interim solution more quickly achieved, Alternative No. 2 is highly recommended. Alternative No. 3 would perhaps give more certain protection, but to a smaller area, no doubt, and at a much later time. These areas urgently need protection.

Mr. Robert E. Anderson

June 14, 1971
Page Three

2. Data on the area and its resources are being compiled by The Wilderness Society and will be made available to the Bureau of Land Management.
3. The Wilderness Society supports the concept of a Little Dominguez Primitive Area, and urges that the study include the area to the north as far as Colorado State Highway 141.
4. Please see the answer to Item 3 above.

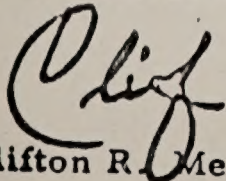
V. Dominguez Reservoir-Scenic Buffer

1. The Wilderness Society will be happy to assist in on-the-ground review of the area adjacent to the proposed Little Dominguez Primitive Area.
2. Indications are that this review should follow the reviews of the proposed Special Areas 1-4 which are much more important and in immediate need of increased protection.

In summary, The Wilderness Society is highly pleased that the Bureau of Land Management is taking steps to bring about proper consideration and protection for these unique and important recreational, scenic, scientific, educational, archeological, and wilderness resources in Colorado.

The many thousands of our members and cooperators in Colorado strongly support the Bureau of Land Management in these objectives. We urge that these project studies be adequately funded and completed as quickly as possible.

With kindest regards,



Clifton R. Merritt
Director of Field Services

cc: Acting Director, BLM;
Ed Rowland
John Mattoon
John Barker
S. M. Brandborg

June 14, 1971
Page Three

Mr. Robert E. Anderson

2. Data on the area and its resources are being compiled by The Wilderness Society and will be made available to the Bureau of Land Management.

3. The Wilderness Society supports the concept of a Little Thompson Primitive Area, and notes that the study includes the area to the north as far as Colorado State Highway 161.

4. Please see the answer to item 3 above.

5. Dominguez Reservoir-Santa Anita

1. The Wilderness Society will be happy to assist in on-the-ground review of the area adjacent to the proposed Little Thompson Primitive Area.

2. Indications are that this review should follow the review of the proposed Special Areas 1-4 which are much more important and in immediate need of increased protection.

In summary, The Wilderness Society is highly pleased that the Bureau of Land Management is taking steps to bring about proper consideration and protection for these unique and important recreational, scenic, scientific, educational, archeological, and wilderness resources in Colorado.

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With kindest regards,

Cliff

Cliff R. Martin
Director of Field Services

cc: Acting Director, BLM

Ed Rowland

John Malson

John Barker

E. M. [unclear]

CORTEZ SENTINEL
Monday June 14, 1971
Cortez, Colorado 81321

From Bedrock to McPhee Dam site

'Wild River' designation proposed for Dolores

A proposal to have part of the Dolores River designated as part of the nation's Wild and Scenic River system has been recommended by the Montrose

County Public Land Classification Committee.

According to the Montrose Daily Press, a study is being suggested to include the Dolores

River from the area at Bedrock in the Paradox Valley south to near the site of the proposed McPhee Dam below Dolores.

The Montrose committee was meeting to discuss planning problems in the west end of the county with Brent Jensen, manager of the Bureau of Land Management San Miguel area.

Marking of the route travel-chaining of pinon-juniper ed by the Dominguez-Escalante expedition in 1776, which needed, but under careful re- included the section of the Dolores River, was approved and regular patterns away from a possible cooperative State roads, draws and canyon rims, Historical Society-BLM effort and each proposed chaining pro- to monument some of the features of the route was suggested.

Archeological sites along the Dolores River should be identified and marked, and a long-range inventory of archeological sites, the committee suggested.

Control should be tight on

Committee members favored review of power site withdrawals to determine if the withdrawals are still needed. They suggested that proposed uranium lease areas be mined with a minimum of surface disturbance and with rehabilitation of the surface after mining.

In the study of the Dolores, different classifications could be applied to different stretches of the river depending on features and the lack or presence of development.

OFFICE OF THE ATTORNEY GENERAL
DENVER, COLORADO
MAY 14, 1937

From Bedford to McPherson Dam Site

Wild River' designation proposed for Dolores

A proposal to have part of the Dolores River designated as a "Wild River" by the National Park Service has been recommended by the National Park Service's Public Lands Committee. According to the committee, the Dolores River, which flows through the Dolores National Monument, is one of the most scenic and undeveloped rivers in the United States. The committee believes that the river should be designated as a "Wild River" to protect its natural beauty and to provide for the enjoyment of future generations. The proposal is being considered by the National Park Service and the Department of the Interior. If approved, the designation would apply to a section of the river between Bedford and McPherson Dam. The designated area would be managed by the National Park Service and would be subject to certain restrictions to protect the river's natural resources. The committee also recommends that the designated area be included in the Dolores National Monument. The proposal is being submitted to the National Park Service for their consideration. The National Park Service will conduct a study of the river and its surroundings to determine the feasibility of the proposal. The study will take into account the river's natural beauty, its recreational value, and the needs of the local community. The results of the study will be reported to the National Park Service and the Department of the Interior. The committee believes that the designation of the Dolores River as a "Wild River" is a necessary step to protect this important natural resource. The committee also believes that the designation will provide for the enjoyment of future generations and will help to preserve the river's natural beauty. The committee is hopeful that the proposal will be approved and that the Dolores River will be designated as a "Wild River" in the near future.

WATER

AIR

MAN

CTION ON THE ENVIRONMENT OF THE WEST

Dolores Wild-River Status Sought

By J. HUNTER HOLLOWAY

SLICK ROCK, Colo.—(AP)—Deep in the sandstone canyonlands of western Colorado, where Spanish priests struggled west two centuries ago, flows the River of Sorrows—the Dolores.

A picturesque portion of the river, tumbling between 1,000-foot cliffs from the hamlet of Cahone to the one-man town of

Bedrock, is being proposed for protection by the National Wild and Scenic Rivers Act.

Although Colorado's plains, mountain grandeur and red sandstone canyons long have been considered among its prized possessions, the state has yet to obtain wild-river status for any of its waterways. The Dolores may be the first, but only

if conservationists are successful in their attempt to prevent the Bureau of Reclamation from blocking the river by a huge earthen dam below the town of Dolores.

The canyonlands, cut by wind and water from deep, red sandstone, are the home of wild horses, mule deer, coyotes, beaver, muskrat and a multitude of smaller animals and birds.

Parts of the river are navigable by canoe and kayak, although many rapids are violent enough to challenge the skill of experienced whitewater paddlers. Rafts make short trips on the river. Other than by water, the canyons are virtually inaccessible. A few side canyons offer difficult access by foot or horseback.

On Aug. 11, 1776, the Spanish priests Dominique and Escalante discovered the river at the site of the town of Dolores, as they searched for a northern route to the California missions.

Brent Jensen of the federal Bureau of Land Management in nearby Montrose, is a supporter of wild-river status for the stream.

Possible Recreation Value

"We feel it has possible recreation value," he says. "We're asking the public if we should initiate a study to see if it qualifies under the Scenic Rivers Act."

The proposal also has the support of the Colorado Open Space Council, an umbrella agency covering 44 conservation organizations. The Colorado Mountain Club and the Colorado White Water Association initially proposed wild-river status after a study in 1965, but that proposal never gained momentum. Today, the whitewater people are circulating a petition requesting the BLM to protect the river.

But the conservation groups may be too late.

"We have not been formally advised by anyone . . . and are not aware of any formal appeal to have the Dolores designated a wild river," said Jim Harpster, a spokesman for the Bureau of Reclamation.

Project Okayed in 1968

Congress approved the construction of the McPhee Dam and Reservoir seven miles south of Dolores in 1968. Although funds for construction still haven't been approved, Congress has provided the Bureau of Reclamation with \$90,000, as of July 1, for advance planning of the Dolores Project—a plan for several dams in the river basin. A total of \$60,000 will become available next month for planning the McPhee structure.

However, Harpster says, "There currently is some consideration being given to redefining certain parts of the project. Some areas now in the project might be excluded or removed, and other areas added."

"It would be unlikely McPhee would be excluded, since it is the major project," he said.

Construction of the earth-fill dam would begin after fiscal year 1974; by then the planning stage is to be complete, he said.

More Irrigation Water

Advocates of the structure say it would provide additional water for irrigation through a portion of the Dolores Basin, a region spanning 2.24 million acres in southwest Colorado and southeast Utah, surrounded by the Uncompahgre Plateau, the San Juan and La Sal mountains. The river flows 237 miles from its source between Grizzly and Hermosa peaks to its junction with the Colorado River.

Conservationists contend, however, the dam would dry up the river entirely and would irrigate about 40,000 acres, less than 2 per cent of the basin. They note, that the river's average flow would equal the dam's capacity, leaving little or nothing for the remote canyons below the structure.

Ed Connors, president of the Open Space Council, doesn't want to see the river dry up, but he says the wild-river status may apply only to the section of river between here and Bed Rock, a distance of about 50 river miles. The portion above here, to Cahone, is less primitive and may not meet the federal wild-river requirements, he says.

It May Be Too Late

Connors also is afraid the dam project may be too far advanced to halt through federal wild-river legislation. He plans to attack from another front, one that failed during the last legislative session.

When Colorado's lawmakers return to the legislature next January, Connors says, they will be greeted by another state wild-rivers bill. It may well be possible to protect the Dolores and other rivers, he says, by acquiring a state designation of wild river. This would prevent federal construction until national legislation could be obtained.

A somewhat similar bill died in committee during the past legislative session. Connors said conservationists were caught off guard and the measure was drafted hastily. The new measure, he says, will be well researched and supported.



June 17, 1971

Durango, Colorado

Wild river status is sought for Dolores

SLICK ROCK, Colo. (AP)—Deep in the sandstone canyonland of western Colorado, where Spanish priests struggled with two centuries ago, flows the River of Sorrows—The Dolores.

A picturesque portion of the river, tumbling between 1,000-foot cliffs from the hamlet of Cahone to the one-man town of Bedrock, is being proposed for protection by the National Wild and Scenic Rivers Act.

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Brent Jensen, of the federal Bureau of Land Management in nearby Montrose, is a supporter of wild river status for the stream.

"We feel it has possible recreation value," he said. "We're informing the public if we should initiate a study to see if it qualifies under the Scenic Rivers Act."

The proposal also has the support of the Colorado Open Space Council, an umbrella agency covering 44 conservation organizations. The Colorado Mountain Club and the Colorado White Water Association initially proposed wild river status after a study in 1965, but that proposal never gained momentum. Today, the whitewater people are circulating a petition requesting the BLM to protect the river.

However, the conservation groups may be too late.

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Congress approved the construction of the McPhee Dam and Reservoir seven miles south of Dolores in 1963. Al-

though funds for actual construction still have not been approved, Congress has provided the Bureau of Reclamation with \$90,000, as of July 1, for advance planning of the Dolores Project — a plan for several dams in the river basin. A total of \$60,000 will become available next month for planning the McPhee structure.

However, Harpster says, "There currently is some consideration being given to redefining certain parts of the project. Some areas now in the project might be excluded or removed, and other areas added. "It would be unlikely McPhee would be excluded, since it is the major project," he said.

Construction of the earth-fill dam would begin after fiscal year 1974, by when the planning stage is to be complete, he said.

Advocates of the structure say it would provide additional water for irrigation through a portion of the parched Dolores basin, a region spanning 2.24 million acres in southwest Colorado and southeast Utah surrounded by the Uncompahgre Plateau, the San Juan and La Sal mountains. The river flows 237 miles from its source between Grizzly and Hermosa peaks to its junction with the Colorado River.

Conservationists contend, however, the dam would dry up the river entirely and would irrigate about 40,000 acres, less than two per cent of the basin. They note that the river's average flow would equal the dam's capacity, leaving little or nothing for the remote canyons below the structure.

Ed Connors, president of the Open Space Council, doesn't want to see the river dry up, but he says the wild river status may apply only to the section of river between here and Bed Rock, a distance of about

50 river miles. The portion above here, to Cahone, is less primitive and may not meet the federal wild river requirements, he says.

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On Aug. 11, 1776, the Spanish priests Dominiques and Escalante discovered the river at the site of the town of Dolores, as they searched for a northern route to the California missions.

Dr. Henry W. Toll Jr., a pathologist in Denver who has researched the river's history,

says Escalante and his companions found the sandstone walls, known today as the Escalante sandstone, a tribulation for man and cattle alike.

"The tortuosity of the Slick Rock Canyon and the height of its walls limiting access and escape deflected the Spaniards eastward in Gypsum Valley," just north of here, he writes. "This decision made with judicious casting of lots and due consideration of the mountain wall evident to the west was an historic decision which ultimately led, by a circuitous north and west route, to the discovery of the Great Salt Lake."

The Dolores River

Page six of today's Herald contains an account of attempts to gain "Wild River" status for the Dolores River. If the backers of the "Wild River" concept for the Dolores succeed it may well spell the end for the Dolores River Project.

The Dolores River Project should not be killed.

The great beauty of the Dolores River makes it easy to understand why environmentalists should become interested in "saving" it. What is not so easy to understand is their great delay in making their wishes known and their unwillingness to work within the project to save the river.

Unlike a number of other water storage and reclamation projects in the southwest whose fate has been in limbo for so long the Dolores River Project has long appeared to be something of a certainty. And because of their faith in its eventual completion many residents of Dolores and Montezuma counties have shaped their lives and occupations in ways they would not otherwise have.

To kill the Dolores River Project now would work a cruel and unjust hardship on hundreds of southwest Coloradans and would be an economic blow in a region of the San Juan Basin that has seen far more than its share of setbacks as the result of the whims of nature and outside interests.

What environmentalists concerned with the fate of the Dolores River should be doing now is coming up with constructive and workable means of making the Dolores River Project environmentally compatible with the beauty of the river and its canyon. This can be done.

And if there are questions and objections to be raised about other Upper Colorado River projects in various stages of the planning phase they should be raised now and not later when the next step is virtually the pouring of concrete.

There can be no doubt that much of the planning for the Upper Colorado River project was done without regard for environmental impact. None of these projects is yet a reality, though some are closer to reality than others. There is still time to plan high quality environmental preservation into each of these projects . . . maybe some shouldn't be built at all but the Dolores isn't one of them.

It is possible that a great deal more ego satisfaction can be had from stopping a major engineering project than from helping engineers design such projects to be compatible with beauty and wildness.

There is one school of "environmentalism" which screams at the thought of disturbing nature while not flinching in the slightest at creating agonizing havoc with human lives. Those trying to stop the Dolores River Project at this late hour fall into this category.

Thursday, June 17, 1971

Grand Junction, Colorado

Dolores May Be First In State To Obtain Wild-Rivers Status

By J. HUNTER HOLLOWAY

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N MEX

COLORADO MAGAZINE

7190 W. 14th Ave. Denver, Colo. 80215
SERVING THE ROCKY MOUNTAIN WEST

(303) 238-0466

June 22, 1971

Mr. Brent Jensen
Bureau of Land Management
P.O. Box 1269
Montrose, Colorado 81401

A	I	Emp.	Int.	A	I	Emp.	Int.
		Dist. Mgr.				Chief RM	
		Chief Ad.				Chief Op	
		Clerk				Range M	
		Clerk				Forest Bn	
REC'D. USDI-BLM				JUN 23 1971			
		Engr				Realty S.	
		Delta				NHS	
		Gunnison				Wildlife	
		Montrose				San Juan	
		San Miguel				Deadline	

Dear Mr. Jensen:

I am following up the article that appeared in last Sunday's Denver Post about wild river status for the Dolores River.

Whenever possible, we like to do our regular outdoor stories in areas that are "endangered," and I guess one could say this about the Dolores. Could you possibly supply me with some information on how I might take a trip down the most scenic portion of the Dolores this summer - afoot, in kayak, however. I would like to take this trip with some people who know the river intimately so that I can get the best information possible in the way of background, geology, history, flora and fauna.

Let me know your thoughts at your very earliest convenience, as I would like to know what is involved in travelling the Dolores so I can see how and when I might best be able to schedule a trip.

Sincerely yours,

David Sumner

David Sumner
Senior Editor

DS/br

Answered by telephone 6-28-71 Will provide information concerning river canyon and try to set up a river trip next year

Viewing the 4-Corners

BY BYRON McKELVIE

Just about the time we begin to think the conservationists can be lived with, tolerated, even liked, for their stands against the polluting power plants, they throw off their costumes of "intellectuality and sensitivity" and show us their true ignorance.

Last week the Colorado Open Space Council, representing 44 conservation organizations, and some other "environmental" groups declared they will fight construction of the McPhee Reservoir Project.

Why will they fight the project? They say because the Dolores River between Cahone and Bedrock should be under federal "wild life status", a condition which would make the stretch of river as protected as the National Park System.

McPhee Dam and Reservoir, say they, must not be built because it would dry up the river entirely and would irrigate only about 40,000 acres, less than two percent of the acres of land in the Dolores River Basin. To us in Southwest Colorado,

40,000 acres is a lot of economy. They contend the river's average flow would equal the dam's capacity, leaving little or nothing for the remote canyons below the dam.

We unlettered and "un-hip" rural folks around here always thought a "wild river" meant just that, a lot of water roaring through narrow canyons and over big rapids and falls.

But the Dolores hasn't been a "wild river" for many and many a year, not since the Montezuma Valley Irrigation Co. built its diversion canal and tunnel back at the turn of the century.

All that flows into the Dolores below the diversion dam below Dolores is a small amount of water and the river bed is so low during all but the spring run-off below the MVI dam that people drive their cars into the center of the river bed and wash the vehicles.

Construction of McPhee Dam, which incidentally, would be several miles upstream from Cahone, where the "wild river" status is supposed to start, would provide even more flow for the proposed wild river flow. The river can't be completely dammed up, since there are commitments to the Lower Colorado River Basin.

The "wild river" area from Cahone to Bedrock doesn't include McPhee Reservoir or any of the other dams proposed for the Dolores River Project.

If the conservationists really mean by demanding the McPhee Reservoir not be built that they want a "dry wild river", we'd suggest they put their campaigns to use on some other canyons, perhaps scenic and in-

teresting Yellow Jacket Canyon, which is virtually inaccessible, has no water and is protected by the Bureau of Land Management.

The BLM's big wheel in Montrose, Brent Jensen, has already expressed support of the wild-river proposal for the Dolores River.

An Associated Press story by J. Hunter Holloway printed in daily newspapers throughout the Rocky Mountain West during the weekend, seemed extremely sympathetic with the conservationist cause. Probably good old J. Hunter Holloway is another one of those Denver residents soaking his throat with diverted Western Colorado water and believing Colorado West should be the exclusive playground of his kind.

If he was determined to sway the people of our area as well as all the other readers, he could have at least used the truth.

For M.F.P.
Public Liaison

The Dove Creek Press
June 25, 1971
Dove Creek, Colorado

DOVE
TALES



The conservation nuts are at it again and this time its the Dolores River they want to protect. An article in many big city newspapers last week focused on efforts to have the river declared a wild river that would prevent its development with any dams or other developments. Apparently the Bureau of Land Management, which has found it necessary to go into the recreation business to have something to do, is backing the proposal.

The story was datelined Slick Rock and told of the colorful history of the river and how it's canyons are inhabited by "WILD HORSES, mule deer, coyotes, beaver, muskrat and a multitude of smaller animals and birds." Then it reveals that it may be too late as there is to be a dam built on the river that is already authorized by Congress.

Well we've got news for them —there is already a dam at Dolores and many other smaller diversion dams along its course. The one at Dolores was built back about the late 1880s and is a source of domestic water for Cortez as well as for irrigation in the Montezuma Valley.

—1—

The writer of the beautifully worded story probably didn't do too much looking around or they, in their hot pursuit of do gooding, might have discovered a big pile of hot radioactive waste piled beside the river while they were at Slick Rock, which would give them a lot more to worry about than making it a wild river.

—2—

The story in the Denver Post was accompanied by a nice picture of the river going through a canyon and quoted that conservationists didn't want dams to flood the canyons. Well, these city folks sure do have nice ideas about how things should be run out here in the wide open spaces—but they don't know much about how to make their own backyards cleaner and healthier.

The Dove Creek Press
June 15, 1911
Dove Creek, Colorado

DOVE TALES

With which we mean the story
of a little girl who was
found dead near the creek
last week. The story was
told by the little girl's
mother, who said she had
found the body of her
daughter in the water near
the creek last week.

I-2

The story of the little girl
who was found dead near the
creek last week is a very
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and

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the creek last week.

...from Summit Re...

Attorney Wade Dillen commissioners that he be able to hire an in- or he believes he will work without one. Dill discussed salary with the board. Porter, chairman of the committee, discussed at planner for invited the com- to the next meeting planning board on Thurs- this week. Commissioners signed a con- with the state for salary

CLUB TO HAVE FILM MONDAY

Members of the Slimmin Wim- OPS Club are inviting husbands, families and to attend the showing on drugs Monday evening August 9. The film will be shown by Robert Connors of Cortez Police Department. He will be glad to answer any questions following the film. Anyone interested is welcome. The film will be shown in the basement of the Dolores Bank at 8:00 p.m.

At the regular meeting Aug. 8, Sheriff Wallace was elected chairman for the month. He has lost the most weight. The group's actual total weight for the month was 17

SLIGHT DAMAGE NO ACCIDENTS

Minor accidents, one involving a deer, caused slight damage to the two separate vehicles involved this week according to the Colorado State

On July 31 at 10 p.m., a 1971 pickup being driven by Gary Leavell, 23, Dolores, caused \$20 damage when it was lightly sideswiped by an unknown vehicle that didn't stop. The accident occurred 4 miles south of Mancos on Highway 145. Virgil Puls investigated the accident.

On Aug. 1, at Stoner on Highway 145 at 9:00 p.m., Robert Gardner, 25, Cortez, did damage to his 1968 Ford pickup when it was struck and killed a deer in the traffic lane. The accident, too, was investigated by Virgil Puls.

the workmen's compensation act, but he must do it by specific written notice to the Division of Labor, if he decides to do so. The recent legislation also provided a means by which unlimited medical treatment is now available to injured Colorado workmen. It further raised weekly compensation benefits to \$64.75.

The Occupational Disease Act was broadened to provide benefits similar to those under the Workmen's Compensation Act. Other beneficial and liberalizing changes were made to the extent that this action by the legislature amounted to the largest legislative session in the areas of workmen's compensation and occupational disease.

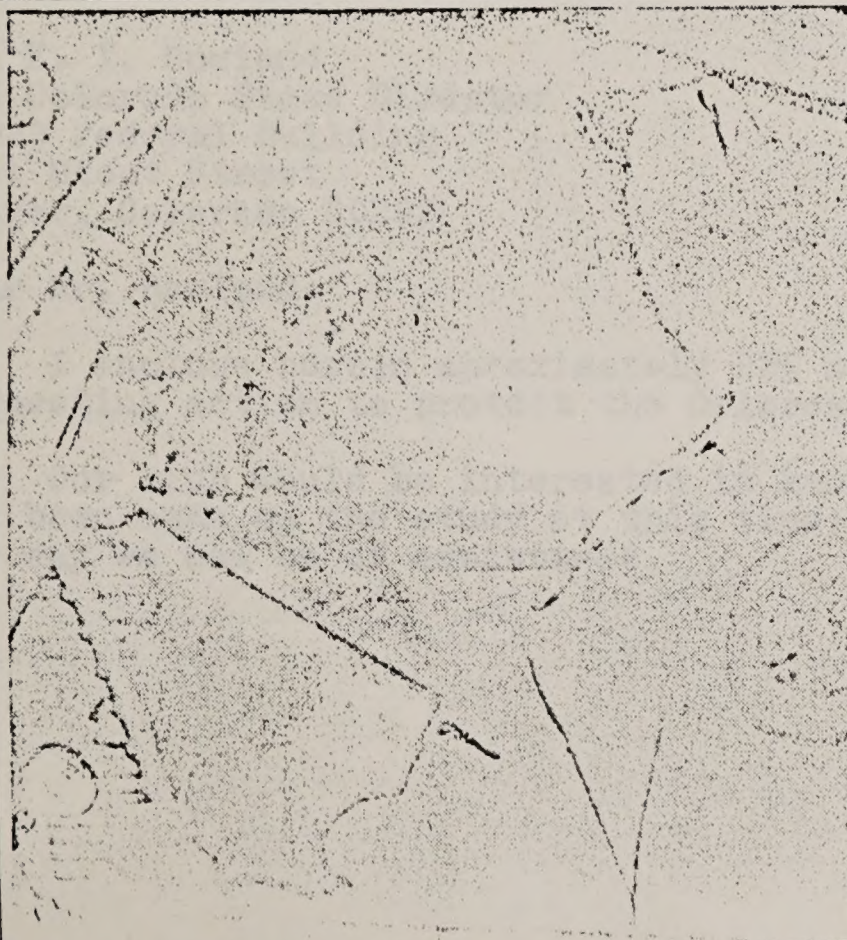
Certain farm workers were also brought under the Act. Basically those workers in employments of four or more and all migratory workers, but this provision will not be effective until January 1, 1972.

AL PATSCHUCK is the new manager for Montezuma Water Company with offices in Dolores. He was formerly at LaPlata Field in Durango doing maintenance work and previously was superintendent of utilities for the City of Durango. He and his wife, Jane, have three children one of which is still at home. The family is living at Riverside Trailer Park.

C of C OPPOSES WILD RIVER

The Dolores Chamber of Commerce at their monthly meeting held Wednesday morning went on record as opposed to any Wild River designation for the Dolores River and voted to draft letters to congressmen and representatives stating their views.

The weekly drawings held by the Chamber have ceased with the last winner being Mrs. Nettie Woodard.



MORE HONEY please says the young companion of Bill Fischer, Colo. Game, Fish & Parks officer, who picked him up from a family holding him illegally after the mother had been killed. It is illegal to have wild animals in captivity and also illegal to kill a mother bear with cub in addition to the fact that the bear season is not yet open. Fischer

said the young Bruin will have to be placed in a zoo since it could not successfully return to wild status after its captivity. It appears to be a few months old and was content as long as being fed honey from the flat stick but quickly started chewing on the weatherstripping of the pickup windows when the feeding stopped.

At 10:30 a.m. on August 10, the bids on a contract calling for minor grading, a new bridge over the Dolores River, stabilizing and bituminous surfacing of 2.0 miles of State Highway 145 just west of Dolores will be opened. The major grading and earth moving work at this site is presently under contract and being worked on.

At 11:00 a.m. the same day, bids for work on Highway 145 between Telluride and Norwood will be opened. This project calls for a total of 25.9 miles widening, stabilizing, and paving shoulder areas, and bituminous repaving of the present road. Eight and seven tenths miles of work will be done from Redvale westerly; 10.3 miles will be improved beginning 4 miles east of Norwood and extending easterly; and 6.9 miles of work will be done beginning 6 miles west of Telluride and extending westerly.

FOOTBALL TO GET STARTED

There will be an organizational meeting for football players and their parents Monday night, August 23rd at the high school gym at 7:30 p.m. Anyone interested is invited to attend.

Football practice begins Tuesday morning, August 24, with two sessions a day at 7 a.m. and 5 p.m.

Physicals are scheduled for the week of August 17-20 at the doctor's office.

Parental permission and insurance waiver slips are available at the doctor's office.

GRADUATES FROM AMPHIBIOUS SCHOOL

Marine Major Marvin B. Tangren, son of Mrs. Miriam Tangren of Dolores, Colo. has graduated from Naval Amphibious School, Naval Gunfire Staff Officers Course at the Naval Amphibious Base, Coronado, San Diego.

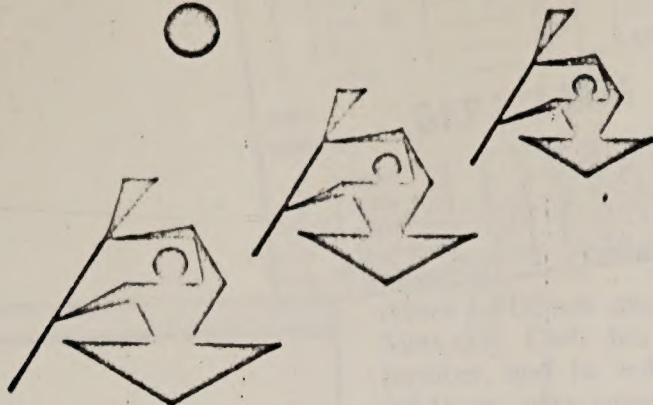
GARDEN CLUB TO MEET MONDAY

The Dolores River Garden Club will meet Monday, Aug 9 at the home of Mrs. Mary Jane McRae at 1:30 p.m. Discussion of the flower show will be held.

...and
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...phone 28
...Supervisor
...Colorado,

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July 6
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colorado white water associatio

COPY

August 27, 1971
2007 Mariposa
Boulder, Colorado
80302

Mr. E. I. Rowland
BLM Colorado State Director
14023 Federal Building
1961 Stout Steet
Denver, Colorado 80202

Dear Mr. Rowland;

I enclose herein aproximately 225 more signatures requesting action to protect the Dolores River.

Our club would be interested in knowing what progress has been made on the study at this time; and if there is any way we can be of assistance.

Sincerely,

Sue O'Brien
Sue O'Brien
Conservation Chairman
Colorado White Water
Association

Emp.	Int.
Dist. Mgr.	Chief RM
Chief Ad.	Chief OP
Clerk	Range Ss
Clerk	Forest Sp
REC'D. SEP 17 1971	
USDI PLM	MONT. DIST.
Engr	Realty S.
Delta	NRS
Gunnison	Wildlife
Montrose	San Juan
San Miguel	Deadline

Montrose

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BARGAIN BOOKS

A certain number of the beautiful Sierra
Club reprints are left with us and we are
giving CMC'ers the benefit of a bargain
price on these of \$2.50, plus appropriate
tax (and 35¢ mailing cost).

Ormes "Guide to the Colorado Moun-
tains" now back in print. \$6.00, plus
tax and mailing.

The Colorado Mountain Club
1723 E. 16th Ave.
Denver, CO 80218
Phone: 355-3666

return to Denver one day. The Colorado
Mountain Club has lost an invaluable
member, and he will be missed by the
old-timers who knew him, as well as by
his fine family and by his devoted wife
Beryl.

His accomplishments for the Club, and
the warmth of his smile, will not be for-
gotten.

-V.E.H.

Edmund Bassett

We note with regret the passing of Ed-
mund Bassett, of Taunton, Massachusetts.
A member of the club for 25 years, he
attended a number of the club outings
in Colorado, including the 1949 Snow-
mass Outing and others.

Dolores River

Adios Dolores. Goodbye, lovely river
of sorrows, of the beautiful red cliffs and
dancing silver waters. You are next among
the dammed.

Goodbye, too, deer, beaver, muskrats,
wild horses and birds, and small fur
bearers. You too are doomed, for your
homes will be drowned and the valley
beyond parched and desolated, robbed
of the green giving waters of the dammed
stream.

Goodbye, too, to quantities of already
allocated Colorado River water that will
be spread out for unneeded farms, evap-
orated, and salted. And goodbye to a
whale of a lot of taxpayers' money that
will go to fund the project.

Congress has provided \$90,000 as of
July 1 for advance planning of the Do-
lores Project, a plan to place several
dams in the river basin. \$60,000 will be
available next month for the planning of
the McPhee structure but construction
won't actually begin until 1974.

Do we need this project? Does it make
sense? Or is it just more folly in the
name of progress, pushed primarily to
give overgrown and outdated Federal
Bureaus more jobs for self perpetuation?

-Marjorie Peregrine

T&T-No. 632

From "Trail + Timberline"

Aug. 1967

1971

UNIVERSITY OF COLORADO
ARCHAEOLOGICAL RESEARCH CENTER
MESA VERDE NATIONAL PARK
COLORADO

Emp.	Int.
Dist. Mgr.	Chief RM
Chief Ad.	Chief OP
Clerk	Range Co
Clerk	Forest

REC'D.
USDI-BLM

SEP 14 1971

Engr
Delta
Gunnison
Montrose
San Miguel

Realty S.
HRS
Wildlife
San Juan

Deadline

7 September 1971

Memorandum

TO: State Director, Bureau of Land Management

FROM: Director, University of Colorado Mesa Verde
Archaeological Research Center

SUBJECT: Monthly report for August, 1971---Field work
accomplished under terms of Contract No. 14-11-0008-
3159 (Renewal).

1. Actual field work along the Dolores River on BLM lands did not begin until 13 August. During the balance of the month, nine days were spent in the field and two days were given over to laboratory analysis.
2. The director, and two anthropology students (K. Moffitt and B. Miller) spent four field days in the area of Big and Little Gypsum Creeks, San Miguel and Montrose Counties. A total of 15 sites were recorded in this area, including rock art sites, lithic campsites and chipping sites, and cave overhangs.
3. B. Miller and K. Moffitt also spent five field days in the Mountain Sheep Point area (east of Dove Creek, Colorado) and along the Dolores River east of Cahone, Colorado. They recorded 11 archaeological sites, all characterized as lithic campsites and chipping sites.
4. Notable information derived from these two spot surveys is the recovery of projectile point types which are older than 1500 B.C. This data, viewed in light of a lack of prehistoric Anasazi (Mesa Verde) ceramics and habitation sites is deserving of further investigation to determine cultural boundaries in this area of southwestern Colorado, through time and space.
5. The formal report on this work should be completed by 1 November.
6. Expenditure of the remainder of the contract funds should be anticipated for late spring, when access to the Dolores River canyon can be made by river navigation means.

David A. B. [Signature]

Montrose

United States Department of the Interior

5.22a-3
6223

BUREAU OF LAND MANAGEMENT

COLORADO STATE OFFICE
14023 FEDERAL BUILDING
1961 STOUT STREET
DENVER, COLORADO 80202

Emp.	Int.	Emp.	Int.
Dist. Mgr.		Chief RM	
Chief Ad.		Chief Op	
Clerk		Range Sn	
Clerk		Forest Sp	
REC'D. USDI-BLM		JUL 1 1971	
Engr		Realty S.	
Delta		MRS	
Montrose		Wildlife	
San Miguel		San Juan	
Deadline			

Memorandum

To: Regional Director, Mid-Continent Region
Bureau of Outdoor Recreation, Denver, Colorado

From: State Director, Colorado

Subject: Wild River Study Assistance

The Dolores River between the San Juan Forest boundary and Bedrock, Colorado exhibits significant potential for classification under the Wild and Scenic Rivers system. We request your immediate assistance in conducting a reconnaissance study of this river section to determine its potential for 5(d) status under P.L. 90-542.

Time is particularly critical in that the Dolores River project proposal by the Bureau of Reclamation as well as Atomic Energy Commission proposals for offering uranium mining leases in this area could both destroy the river environment as we now know it.

The timing seems right in that there is a growing public sentiment in support of a protective classification. This segment of the Dolores River is floated by white water enthusiasts during the spring months and provides a rugged hiking experience year round. The Escalante Expedition passed through this area in 1776, thus providing the basis for interest today in an historical trail following his route. We have been petitioned by some 200 persons requesting this study. Many of these individuals have either floated the river or have hiked in the area and are knowledgeable of the qualities it offers.

Nomination of this river under Section 5(d) of the Act would be the first river so nominated within Colorado, and it could lead to one of the first classified rivers in desert, canyon-land type country.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

EDUCATION STATE DEPT.
1615 WYOMING AVENUE
WASHINGTON, D.C. 20540

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Memorandum

To: Regional Director, Salt Lake Region
Bureau of National Recreation, Denver, Colorado

From: State Director, Colorado

Subject: Wild River Study Assistance

The Division is pleased to learn that the Salt Lake Region is conducting a study of the Colorado River. The Division is currently conducting a study of the Colorado River and is interested in the results of your study. The Division is currently conducting a study of the Colorado River and is interested in the results of your study. The Division is currently conducting a study of the Colorado River and is interested in the results of your study.

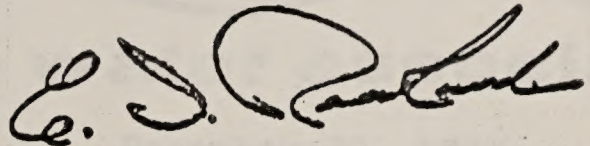
The Division is currently conducting a study of the Colorado River and is interested in the results of your study. The Division is currently conducting a study of the Colorado River and is interested in the results of your study. The Division is currently conducting a study of the Colorado River and is interested in the results of your study.

The Division is currently conducting a study of the Colorado River and is interested in the results of your study. The Division is currently conducting a study of the Colorado River and is interested in the results of your study. The Division is currently conducting a study of the Colorado River and is interested in the results of your study.

The Division is currently conducting a study of the Colorado River and is interested in the results of your study. The Division is currently conducting a study of the Colorado River and is interested in the results of your study. The Division is currently conducting a study of the Colorado River and is interested in the results of your study.

Our work plan for FY 1972 allows us no opportunity to conduct this study on our own. Our available expertise in some required disciplines is nil, further hampering our ability to conduct the study alone.

For all the above reasons, we feel this proposal has merit and we request your assistance.



E. I. Rowland

cc: Regional Forester, Denver
✓ DM, Montrose

Our work plan for 1971 allows us an opportunity to conduct this study on our own. Our principal objective is to conduct this study in all, further developing our ability to conduct the study alone.

For all the above reasons, we feel this proposal justifies and we request your assistance.



E. J. Egan

cc: Regional Director, Bureau
VLM, Hagerman

A	I	Emp.	Int.	A	I	Emp.	Int.
		Dist. Mgr.				Chief RIA	
		Chief Ad.				Chief	
		Clerk				Rm	
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REC'D. JAN 3 1972

Engr	Realty S.
Delta	NRS
Gunnison	Wildlife
Montrose	San Juan
San Miguel	Deadline

colorado white water association

December 29, 1971
2007 Mariposa
Boulder, Colorado 80302

Mr. E. I. Rowland
State Director
Bureau of Land Management
14023 Federal Building
1961 Stout Street
Denver, Colorado 80202

COPY

Dear Mr. Rowland;

As you may recall, the Colorado White Water Association was working with Roger Nelson before he left, to encourage study of the Dolores River for inclusion in the National Wild and Scenic Rivers Act.

Mr. Nelson indicated that the BLM planned to complete study for a 5d proposal, identifying the Dolores as having Wild River potential, before Christmas. He indicated that if 5d classification were obtained; that would force a full fledged Wild River study before any projects could be approved; or delay any existing project proposals until a Wild River study was made.

As you know, Congress provided the Bureau of Reclamation with \$90,000 last summer for advance planning of the Dolores Project.

Time is obviously of essence on the 5d proposal. Our members are deeply concerned, and would like to know what progress has been made; and if there is any way they can be of assistance.

Sincerely,

Sue O'Brien

Sue O'Brien
Conservation Chairman
Colorado White Water Assn.

cc Brent Jensen, Montrose



Colorado White Water Association

December 29, 1971
1000 West
Denver, Colorado 80202

COPY

Mr. E. J. Hovland
State Director
Bureau of Land Management
1400 West
Denver, Colorado 80202

As you say, the Colorado White Water Association
has been working with the Bureau of Land Management
of the Federal River for information in the National Wild and Scenic
River Act.

Mr. Hovland indicated that the BLM planned to complete study
for a proposal, identifying the Colorado as having Wild River
potential, before Christmas. He indicated that it was unlikely
that we would have a full fledged Wild River
study before my proposal could be approved, or delay any other
the present proposals with a Wild River study was made.

As you know, Congress provided the Bureau of Reclamation
with \$50,000 last summer for studies planning of the Colorado River
Act.

There is obviously of assistance on the 50 proposal. Our members
are deeply concerned, and would like to know what progress has
been made, and if there is any way they can be of assistance.

Sincerely,
Joe O'Brien

Joe O'Brien
Conservation Director
Colorado White Water Assoc.

cc: Frank Jensen, Montrose



The Colorado Mountain Club

GROUPS: ASPEN • BOULDER • BOULDER JUNIOR • DENVER • DENVER JUNIOR • EL PUEBLO • FORT COLLINS
LONGS PEAK • LOS ALAMOS, N.M. • PIKES PEAK • SAN JUAN • WESTERN SLOPE

TELEPHONE
355-3666

1723 EAST SIXTEENTH AVENUE
DENVER, COLORADO 80218

OFFICE HOURS MONDAY THRU FRIDAY 8 A.M. TO 2 P.M. AND TUESDAY AND THURSDAY EVENINGS 7 TO 9 P.M.

March 26, 1972

Mr. E. I. Rowland
Colorado State Director BLM
14023 Federal Building
1961 Stout St.
Denver, Colorado 80202

A	I	Emp.	Int.	A	I	Emp.	Int.	
		Dist. Mgr.				Chief Ad.		
		Chief Ad.				Chief CP		
		Clerk				Range Sp		
		Clerk				Forest Sp		
REC'D. USDI-BLM				MAR 27 1972				MONT. DIST.
		Engr				Range S.		
		Delta				NRS		
		Conservation				Wildlife		
		Montrose				San Juan		
		San Miguel				Deadline		

Dear Mr. Rowland:

The Colorado Mountain Club would like to urge the Bureau of Land Management to do a detailed study of the Dolores River from Cahone, Colorado to Bedrock, Colorado. We feel that this section of river eminently qualifies for Wild River Status and needs protection before it has been damaged by man's intrusion.

Yours truly,

Marian B. Senior

Marian B. Senior
Chairman Conservation
Committee

MS:ah

cc: Mr. Brent Jensen ✓
BLM
Box 1269
Montrose, Colorado 81401

NAME	DATE
Mr. & Mrs. Jan Eric Strauch	
Box 203	
Vail, Colorado	

Montrose

NAME	DATE
Mr. & Mrs. Jan Eric Strauch	
Box 203	
Vail, Colorado	

Mr. & Mrs. Jan Eric Strauch
Box 203
Vail, Colorado

Wayne Aspinall
House Office Bldg.
Washington, D.C. 20515

Dear Mr. Aspinall:

As registered voters in Vail and Eagle County, Colorado we are very much in favor of protecting the Dolores River in S.W. Colorado under the National Wild and Scenic Rivers Act, (P.L. 90-542) and to stop the McPhee Dam proposal on the upper stretches of that river. The McPhee Dam is unnecessary as it would benefit a small number of people and not the majority of Americans.

Please help us protect our waters for our children and grand children.

Very sincerely yours,

Mrs. Jan Eric Strauch

CC: Mr. Dale Andrus
Bureau of Land Mangement
Denver, Colorado

Mr. D.L. Crandall
Regional Director
Bureau of Reclamation
Salt Lake City, Utah

Governor John Love
Governor of Colorado
Denver, Colorado

Handwritten signature and illegible text at the top of the page.

Mr. & Mrs. Jan Eric Strawn
Box 583
Vail, Colorado

Wayne Aspinall
House Office Bldg.
Washington, D.C. 20515

Dear Mr. Aspinall:

As registered voters in Vail and Eagle County, Colorado we are
very much in favor of protecting the Colorado River in N.M.
Colorado under the National Wild and Scenic Rivers Act. We
do not want the National Wild and Scenic Rivers Act to be
weakened or lost. The National Wild and Scenic Rivers Act
is a very important law and we would like to see it
stay of American.

Please help us protect our water for our children and grand
children.

Very sincerely yours,

Mrs. Jan Eric Strawn

CC: Mr. Wayne Aspinall
Bureau of Land Management
Denver, Colorado

Mr. D.L. Crandall
Regional Director
Bureau of Reclamation
Salt Lake City, Utah

Governor John Love
Governor of Colorado
Denver, Colorado

CONSERVATIONISTS SAY:

1. The proposed McPhee Dam is unnecessary. It would benefit only a very small number of large landowners, politicians, and bureaucrats; NOT the majority of Americans.
2. The dam is economically unjustifiable. The Bureau's benefit-cost ratio is misleading. It is based on 1962 prices, and the ability to borrow money at 3% interest! Using realistic figures, the costs are far greater than the benefits.
3. Over \$47 million of taxpayers' money would be wasted on its construction.
4. A project so marginal is hardly worth destroying a unique desert river canyon which meets the requirements for wild river designation.
5. The resource as a recreational river has not been afforded economic consideration, when greater numbers of people are running rivers, and the number of rivers available to run is rapidly decreasing.
6. The project should be totally re-analyzed. We must demand an environmental impact statement before any further planning.

HELP PROTECT THE DOLORES under the WILD RIVER BILL

The 115-mile stretch of the Dolores River, between the towns of Dolores and Cortez, meets the requirements for protection under the National Wild and Scenic Rivers Act (P.L. 90-542).

Your Congressmen and Government Officials need to know that you care so they can take appropriate action. Constituents of Frank Evans, Mike McKeivitt, and Donald Brotzman may address these Congressmen at House Office Bldg., Washington, D.C. 20515. Constituents of Congressman Wayne Aspinall should address him at Rayburn House Bldg. Rm. 2201, Washington, D.C. 20515.

PARTICULARLY IMPORTANT are letters to Evans & Aspinall from their constituents!

It would be extremely helpful to send copies of your letters to:

Mr. Dale Andrus, State Director
Bureau of Land Management,
Rm. 700, Colorado State Bank Bldg.
1600 Broadway,
Denver, Colorado 80202

We have asked a lot, but if you really care about the Dolores, a letter to Governor Love would have a great impact too!

If you are willing to help further in an effort to gain protection, please check appropriate spaces below, and mail bottom of page (including your name and address) to Dolores Wild River Committee, 2007 Mariposa, Boulder, Colo. 80302, or P.O. Box 853, Durango, Colo. 81301.

_____ Please keep me on your mailing list. I will help.

_____ I would like to do volunteer work. Please let me know how I can help.

_____ Enclosed is my donation of \$_____ to help cover costs of printing, etc. My name and address are below. My phone number is _____.

Dolores Wild River Committee

P.O. Box 853
Durango, Colo. 81301

DURANGO HERALD
August 17, 1972

Love urged to preserve Dolores River

By GORDON G. GAUSS
Associated Press Writer

DENVER (AP) — Passage of time is making it more difficult to get reclamation projects, Director Felix L. Sparks of the Colorado Water Conservation Board said Wednesday during a board meeting featuring progress reports on western Colorado proposals.

Sparks also disclosed that "arm letters" are being received by Gov. John Love urging the state to drop plans for construction of a project on the

Dolores River in southwest Colorado.

Sparks said the basis for the complaints is that the river is valuable for whitewater boating. Such boating would be ruined by development of water supplies for irrigation, industrial and municipal uses, according to the complaints.

Later, Ed Wiscombe of the Bureau of Reclamation office at Durango challenged the statement that development of the river would ruin boating. He said regulation of the river

flow would increase the number of boating days most years on the average from about 31 to 37.

He said a river flow of 1,000 cubic feet per second is required for boating.

Wiscombe and J. W. Robins, manager of the Grand Junction projects office of the bureau, summarized major projects in the area. Robins said that the design for the Crystal Dam — the final part of the Curecanti

project — has been changed from an earth-filled structure to a thin concrete structure 10 feet wide at the top and 29 feet thick at the bottom. He said the department hopes to let contracts on it next spring.

Wiscombe said that planning on the Animas-La Plata Project should be complete by 1975.

CHASCO NEWS
August 17, 1917

Love urged to protective Dolores River

By GORDON S. DALL
Associated Press Writer

LOVELY (AT) — Farmers of this state are making a most earnest appeal to the federal government to protect the Dolores River. The federal government is the only one that can do so, and it is urged that it should do so at once. The Dolores River is the only one in the state that is not protected, and it is urged that it should be protected at once. The Dolores River is the only one in the state that is not protected, and it is urged that it should be protected at once.

Dolores River is situated in the state of Colorado. It is the only river in the state that is not protected. It is urged that it should be protected at once. The Dolores River is the only one in the state that is not protected, and it is urged that it should be protected at once. The Dolores River is the only one in the state that is not protected, and it is urged that it should be protected at once.

The Dolores River is the only one in the state that is not protected. It is urged that it should be protected at once. The Dolores River is the only one in the state that is not protected, and it is urged that it should be protected at once. The Dolores River is the only one in the state that is not protected, and it is urged that it should be protected at once.

The Dolores River is the only one in the state that is not protected. It is urged that it should be protected at once. The Dolores River is the only one in the state that is not protected, and it is urged that it should be protected at once. The Dolores River is the only one in the state that is not protected, and it is urged that it should be protected at once.

The Dolores Project Tour:

DOVE CREEK — El Rio de Dolores, "The River of Sorrows," was what the scholarly priest explorer Escalante called it. Somehow, as it runs through the lives of men, the significance of that name has never been lost.

It was in 1776 that the Spaniard Escalante came through this region of five rivers and named the Dolores. His reasons for the sorrowful title are the stuff of many legends.

Today the sorrow rising from the waters of the Dolores are real. The water is invaluable. Without it towns will die and local economies be moved to ruin. People have put the essence of their lives into the soil of the high plateaus in the belief that someday the water would come. It hasn't. Others who have used the water in its natural state or through irrigation and domestic water development in the past depend on it as much as those who have never had it.

There are new voices entering the discussion of the fate of the waters of the Dolores. They belong to those, local and from faraway, who do not need the water to live but need it to sustain their spiritual existence. They simply love the waters of the Dolores and the series of cathedral canyons and simple valleys through which they flow. They are defenders of beauty who ask to be heard.

It was a gloomy, overcast day last Saturday when we gathered in the courtroom of the Dolores County courthouse in Dove Creek to begin an informational tour of the area which would be affected by the proposed Dolores River Project.

In the room was an unlikely group composed of an urban, urbane Frank Evans, Congressman from Pueblo, weathered bean farmers from Dove Creek, Cahone, Pleasant View and other dry land farm communities, Montezuma and Dolores County and town officials, water men from throughout the San Juan Basin and officials of the Bureau of Reclamation... And environmentalists from Durango, Grand Junction and the Front Range megalopolis. Various members of the news media were there as well.

The important people were all introduced.

We left in buses and a caravan of cars for the spot on the Dolores River from which Dove Creek takes its municipal water. The 1,100 foot drop from the flat plateau on which Dove Creek sits surrounded by tens of thousands of acres of withering beans into the Dolores River Canyon is precipitous and challenging. At the end of the road was a picnic lunch.

On the bumpy road down we passed a sign welcoming us to the picnic and warning white water boaters not to bring their boats unless they brought water. It was a sarcastic reference to those who seek to stop the Dolores River Project in order to preserve the white water boating qualities of the river during the spring runoff.

Sue O'Brien, coordinator of the Dolores Wild River Committee and an avid white water boater who has gone down the raging, spring Dolores eight times in a flimsy raft, told why she opposed the project. The Dolores River, she said, is the only river in Colorado which qualifies for designation under the Wild Rivers Act. The dam below Dolores would destroy the river, leaving Colorado without a wild river.

She was also a critic of published figures showing economic benefits of the project and argued that cost of the project far exceeded its benefits to the people of the area, the state and the nation. She said cost figures were based on outdated estimates and interest rates.

Ms. O'Brien talked of the beauty of the canyon into which



NANCY COX of Cahone listens grimly as the effects of this year's drought on the bean harvest are told. The field in which the group listened belongs to the Coxes. Behind her is Lewis Matis, Durango native and school teacher, who is concerned about the environ-

The Dolores Project

DOLORES PROJECT — In the Dolores Project, the Dolores River is dammed at the mouth of the Dolores River, near the town of Dolores, Colorado. The project is designed to provide irrigation water for the Dolores River valley.

The Dolores Project is a large-scale irrigation project in the Dolores River valley, Colorado. The project is designed to provide irrigation water for the Dolores River valley. The project is a large-scale irrigation project in the Dolores River valley, Colorado. The project is designed to provide irrigation water for the Dolores River valley.

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A group of people, likely workers or farmers, standing in a field. They are wearing hats and work clothes, and some are holding tools or equipment. The background shows a hilly landscape with some trees and a building in the distance.

The new politics of water

(Continued from Page 4)

we were descending. She spoke with the certainty of one who had seen it many times and loved what she saw.

Chuck Wanner, head of the Colorado Open Space Council Wilderness Committee and a man deeply concerned about the environmental effects of the proposed Dolores Project, also questioned its benefit to the people of the dry lands we were passing through.

Wanner wanted to know who would actually be helped by the project. He wondered whether the most successful farmers would not benefit most with the small ones being left out. Wanner was particularly concerned about the cost to small farmers of the sprinkler systems which would carry water to crops and of paying for the water itself. Reclamation projects such as the Dolores must pay for themselves over the long run. Power generation in other projects, irrigation assessments, municipal and industrial assessments were among the ways of making payment.

The picnic spot was a beautiful wide spot in the canyon floor cut off from the overcast sky by a roof of boxelder boughs. The Dolores itself was bone dry.

Here were the people of drylands. Hospitable, gracious and open. There were moments of uneasiness as sophisticated Clubbers struck up conversation with men and women in the fields.

The x was of the drought. Of the overcast sky that was overcast every day in a cruel effort to make the farmers believe the rains would come. They hadn't.

Our hosts talked of the history of the bean country. Their

fathers had come in the early part of the century to clear the land. Their fathers had been the first planners of the Dolores Project. They knew what water would do for the fertile plateau soils. Water. Water. Water.

One man told of his pride in his lawn, of how much labor and money had gone into the lawn in June and July. In August the water ran out and the lawn was brown and dying. People think we don't care here, he said, that that's why we don't have lawns and nice gardens.

A woman, weathered and shy, looked at the ground as she spoke of what the project would mean to her and her family. A lifetime she had dreamed. Her working life was almost gone. I asked her what she would do if the water didn't come. Her answer was to silently raise her twisted hands upward and drop them then to her side.

The river bed is dry. If the project goes through there will at least be a stream flowing throughout the year to make fresh pools. In that isolated spot one thought of deer and cat coming to drink, of blue herons guarding their nests and rising to fly across the dying day, of laughing birds and chattering squirrels come back. Of life come back with the assurance of water.

People talked to one another there. But as the tour moved on the questions and doubts descended like the sky itself. Someone will win this struggle and someone lose.

It is not an easy thing to think of those who have waited so long for water being told they will never have it. It's worth working for to see that they will.

River project tour puts answers before critics

Nearly 100 persons representing a variety of "yes" and "no" opinions, ages, occupations and areas took a "show-me" tour last Saturday in an attempt to foster "communications" over the Dolores River Project.

Leading and sponsoring the tour were officials of the Dolores Water Conservancy District along with Bureau of Reclamation officers. Bob Tyner of the Durango BuRec office and Dolores County Extension Agent Loren Alexander did most of the explana-

tions on the tour.

Included on the tour were U.S. Representative Frank Evans of Pueblo, Colorado Representatives Hiram McNeill of Montrose and Roy Wells of Cortez; a number of political candidates; officials of the Southwest Colorado Water Board; newspaper reporters; members of the two - county planning commission; representatives of the Montezuma Valley Irrigation Co.;

Also some Durango citizens; representatives of the Bureau of Land Management from Durango and Montrose; Dolores and Montezuma County commissioners; representatives of the Farmers Mutual; attorneys for the water organizations; an attorney from Monticello; officials of the Soil Conservation Service; Dr. Roy Craig, representing the San Juan Basin Ecological Society;

And officials of the Dolores River Project; interested citizens from Grand Junction's designing office and green belt project; citizens from Norwood, and officers of the National Park Service and U.S. Forest Service.

Key to the "communications" theme of the tour was the fact that conservation groups have been writing letters to Gov. John Love and contacting other state and federal officials asking the Dolores River Project be stopped for various reasons, including a fear it would stop "white-water boating" on the river, wouldn't be economically feasible, would destroy wilderness land, etc.

Representing the dissenting group were delegates from the Sierra Club, the Colorado White Water Assn. and the Colorado Open Space Council.

Tyner explained during the brief pre-tour meeting at the Dolores County court house that the tour would hopefully explain some of the reasons for the project and open up the way for the various people of various opinions to air their differences and perhaps come to agreements.

A picnic served by Ted Weed and assistants of the DWCD along with the Dove Creek Chamber of Commerce, was held at noon at the site near the town's pumping plant on the Dolores River.

It was here the group got its first look at the present condition of the river, which at that point is completely dry except for some small pools. The river doesn't have any running water in it at present after it passes the McPhee Dam site 10 miles below Dolores.

of Dove Creek, which has to pump water up an elevation of 950 feet from wells in the river bed. There is a chronic shortage for the town and also the entire surrounding area's farmers, who have to haul domestic water.

The caravan of two buses and numerous cars and pickup trucks then strung out across the countryside to the

next stop, a bean farm near Cahone where the group was shown the combined efforts of drought and root rot on the beans.

Alexander explained the effect the Dolores River Project would have on the crops, raising the production of beans as much as ten times and providing a method by which the

Continued on page 10

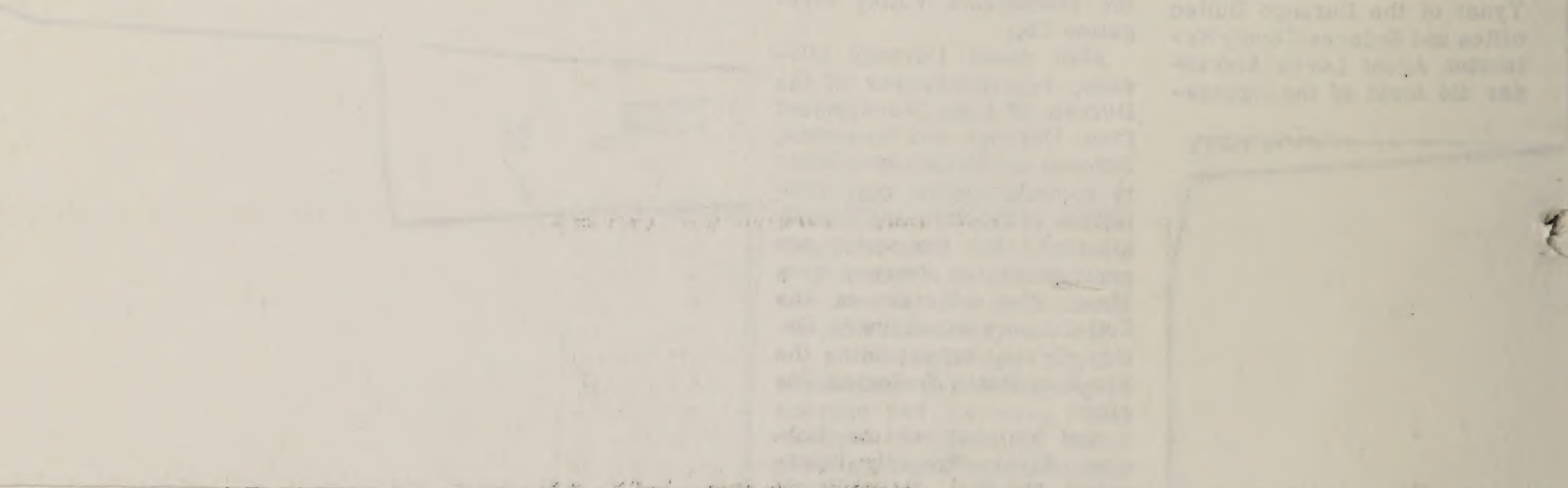
River project four puts answers before critics

Four answers were given today to the questions which have been asked by the public regarding the proposed river project. The answers were given by the four members of the committee who have been appointed to study the project. The answers were given in a public hearing held in the city hall.

The first answer was given by the chairman of the committee, who stated that the project was feasible and that it would be of great benefit to the city. He stated that the project would provide a source of water for the city and that it would also provide a source of recreation for the people.

The second answer was given by the engineer in charge of the project, who stated that the project was feasible and that it would be of great benefit to the city. He stated that the project would provide a source of water for the city and that it would also provide a source of recreation for the people.

The third answer was given by the city engineer, who stated that the project was feasible and that it would be of great benefit to the city. He stated that the project would provide a source of water for the city and that it would also provide a source of recreation for the people.



The fourth answer was given by the city engineer, who stated that the project was feasible and that it would be of great benefit to the city. He stated that the project would provide a source of water for the city and that it would also provide a source of recreation for the people.

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The sixth answer was given by the city engineer, who stated that the project was feasible and that it would be of great benefit to the city. He stated that the project would provide a source of water for the city and that it would also provide a source of recreation for the people.

More about Dolores

(Continued from page 1)

bean plants affected by root rot could continue to produce.

This site also showed the line where the main Dove Creek Canal will run.

It was also noted that the present plans call for a pressure system so that sprinkler programs can be used instead of regular irrigation. This method, Tyner said, is simpler for the rolling country it will cover and also be much more efficient.

Inspection then was made of the McPhee damsite and of the recreational potentials of the reservoir in the Dolores River Canyon. Emphasis was placed on the Mc-

Phee work rather than on the entire project, since the objectors had placed their protests on the changes of the river itself.

Other stops were made to point out the high and low water marks of McPhee Reservoir, which will stretch 10 miles, with its water reaching into the city limits of Dolores itself.

A general public meeting was held following the tour at the Dolores State Bank Hospitality Room.

How those who are objecting most to the Dolores River Project accepted the statements or the tour can probably be determined by reconstructing the various conversations participated in by everyone on the tour.

DWCD and Southwest Water Board officials said this week they had hoped to sell some of their ideas to those protesting the project.

To some extent, the original idea of opening up conversations between the various groups went too far, one official said he believes, since the discussions during the various parts of the tour became "too vocal" in that instead of ideas being exchanged they were "throwing verbal comments" at each other.

Tyner, however, said he believes "we've built a bridge" between the groups and they found the people in the area are generally open-minded.

A meeting has been proposed between the conservation groups and officials of the project, and probably will come about.

It was reported that a meeting was held Monday of the Southwestern Board during which a discussion was held about the tour. The board thought some good was done, despite the slightly unbending attitudes on both sides. One benefit was to show the dissenters that the people in the project are solidly behind the project, the board deducted.

Officials said evidently the conservationists came here with an entirely different concept of the project than they left with. "They were aware of some things which they had not thought of or seen in the same light before," Tyner said, "they saw it in a different perspective."

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Dolores Project tour shows true circumstances of river

Two buses loaded with interested area residents took a long tour Saturday of the Dolores River Project, several times "fording" the river which some conservationist have cited as an outstanding "white water boating stream".

In areas of the proposed project, the river itself was a mere trickle, the tour group noted.

The tour, put together and sponsored and operated by the Dolores Water Conservancy District, was to emphasize

the river as it relates to the Wild and Scenic Rivers Act. Sierra Club members and others have objected that they believe construction of McPhee Reservoir on the Dolores River would destroy white water boating. Among those on the tour was Rep. Frank Evans of Pueblo.

The DWCD used statistics as well as eyeball witness tactics to prove that the river isn't a white water stream during most of the year, but only during a few weeks in the spring.

It further pointed out that estimates by engineering experts showed that the construction of McPhee Reservoir will help to keep the flow of the river more constant below the diversion point of the Montezuma Valley Irrigation Co. system.

The tour group met in Dove Creek Saturday morning, and after a short briefing on objectives and goals, set out for the Dove Creek pumping station on the river where lunch was served.

The afternoon tour included inspection of Dove Creek's domestic water diversion works, inspection of dry farmed bean and wheat land near Cahone, inspection of potential recreation sites in the Dolores River Canyon, inspection of the McPhee damsite, inspection of potential McPhee recreation areas, inspection of Montezuma Valley orchards, and inspection of the highway location at Dolores.

A general public meeting was held at 5 p.m. in the Hospitality Room of the Dolores State Bank.

McPhee Reservoir will be behind a 265-foot high dam 10 miles downstream from Dolores, holding 325,000 acre feet of water, with active storage of 150,000 acre feet.

The reservoir will supply irrigation water for drylands in the Cahone Mesa, Dove Creek and Montezuma Valley areas, as well as supplemental service to irrigated land in the valley. It also will give municipal water to Cor-

tez, Cahone, Pleasant View and Dove Creek.

Construction will enable adequate supplies after July 1, help fruit and bean crops as well as others and greatly help the grazing lands and livestock production of the area.

Recreational facilities will be increased greatly through the new system.

Flood control is also a main factor in the project, especially in silt control into the Colorado River.

The Dolores Project was included in the Colorado River Basin Act of 1968. Planning was begun soon after passage of the act with the Bureau of Reclamation doing engineering.

Colorado State University has opened an experimental farm west of Arriola jointly with BuRec and Four Corners Regional Commission funds as well as from DWCD and the State of Colorado. The farm is testing several types of irrigation methods, both sprinkler and ditch types.

Core drilling of the McPhee damsite was started in June this year.

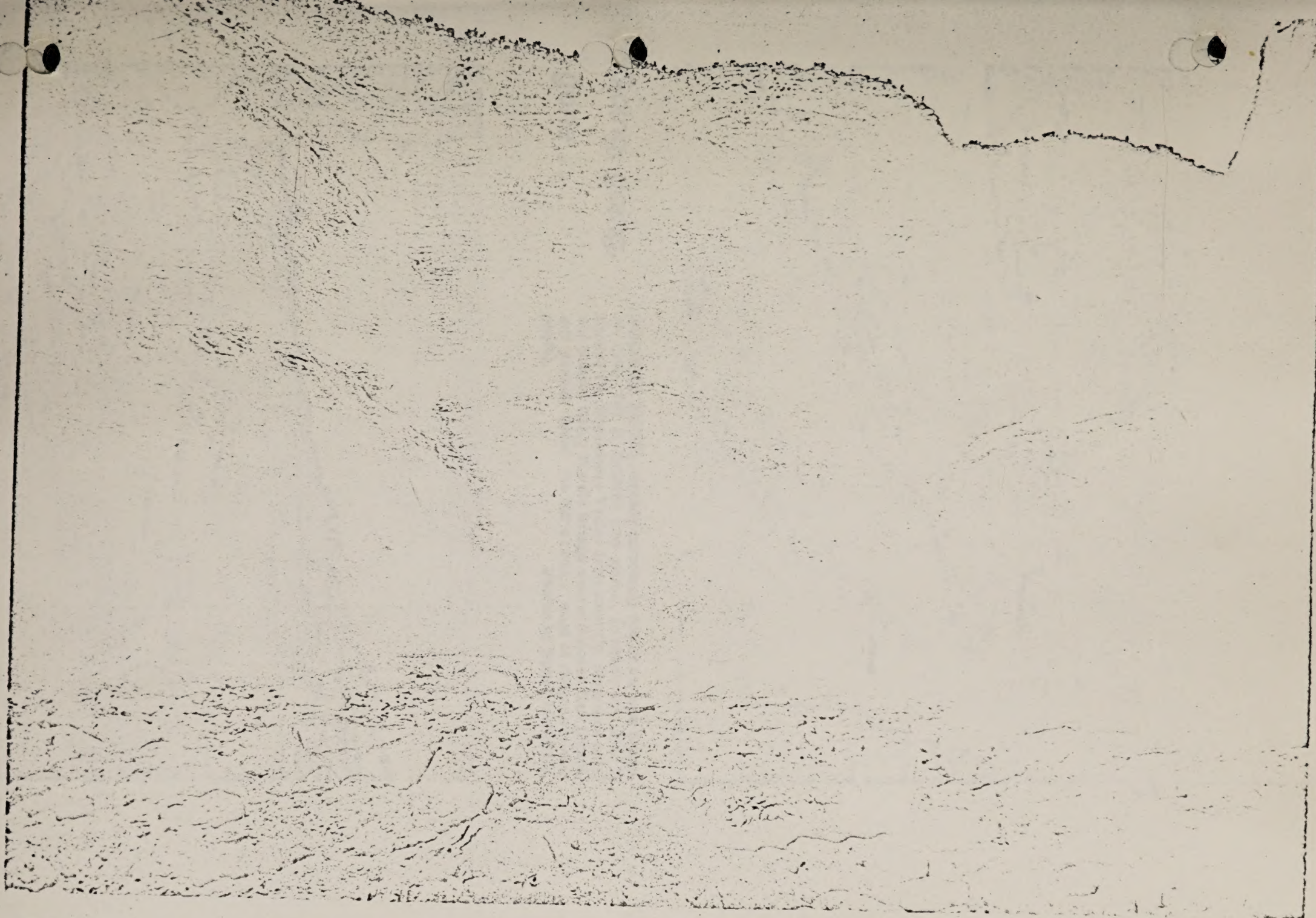
BuRec soil specialists have also made extensive soil tests in the area between Lewis and Cahone.

A study of construction costs of both open ditch and closed conduct or pressurized water delivery is also being made.

DWCD said estimates are that direct and indirect benefits of the Dolores River Project will exceed \$4 million annually.

Under the act, approximately 80 per cent of the cost of the irrigation features of the project will be financed from the sale of electric power generated by the Glen Canyon Power Plant, Blue Mesa, Morrow Point and Crystal units of the Curricanti Project on the Gunnison River and the Flaming Gorge unit on the Green River.

Municipal and industrial water and other features will not participate in the 80 per cent electric revenues, however.



THE DOLORES RIVER NEAR DOVE CREEK was dry Saturday when around a hundred water men, farmers and environmentalists toured the area which will be benefited by the proposed Dolores River Project. The site shown here would be far below the proposed McPhee Dam on the Dolores River. If the dam is built some water would be allowed down the river during the dry summer months, thus preventing complete drying up of the river and allowing some water for the needs of fish and wildlife. Congress-

man Frank Evans (D) of the Third District accompanied much of the tour. He later expressed support for the project. Others along on the trip included representatives of the Sierra Club, the Colorado Open Space Council, the Colorado Whitewater Association, and citizens interested in the environmental protection of the area affected by the proposed project.

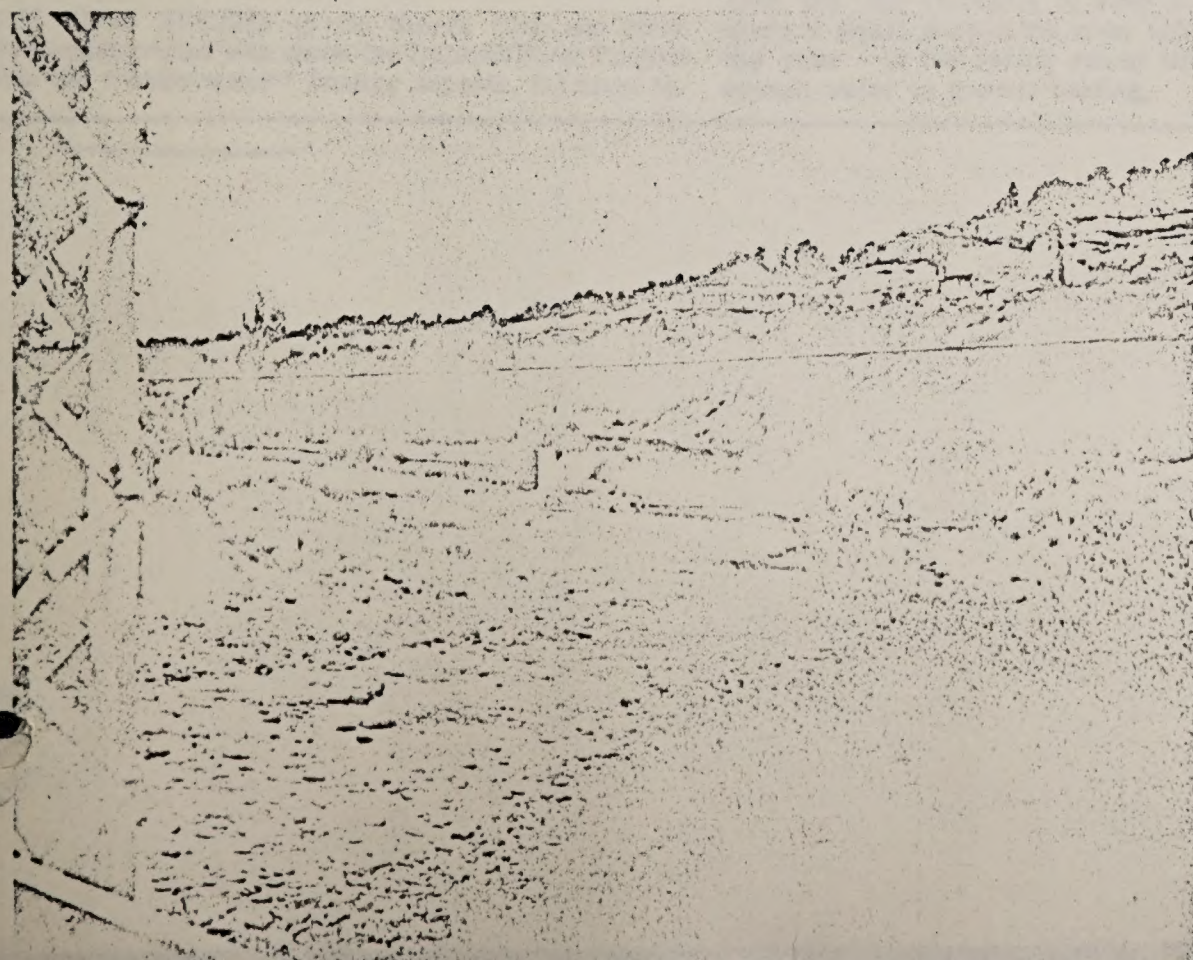
Herald photo by Ian Thompson

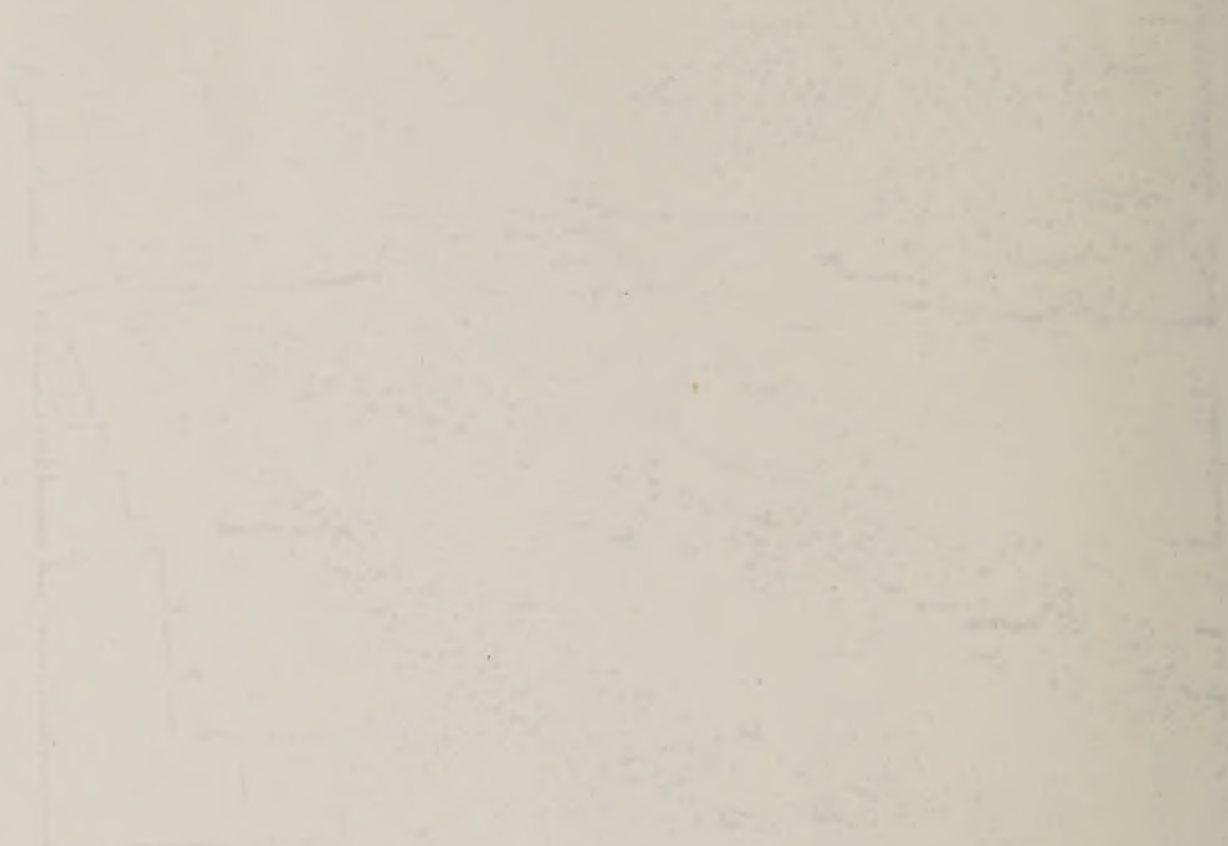


Going, going,
gone . . .

DOLORES RIVER, already extremely low at the new bridge on Colo. 145 at Dolores (top photo), is nearly dry after it passes the Montezuma Valley Irrigation Co. diversion point and passes under the old bridge west of Dolores (low photo), and passes under the old bridge west of Dolores (lower photo).

Photos by Byron McKelvie.

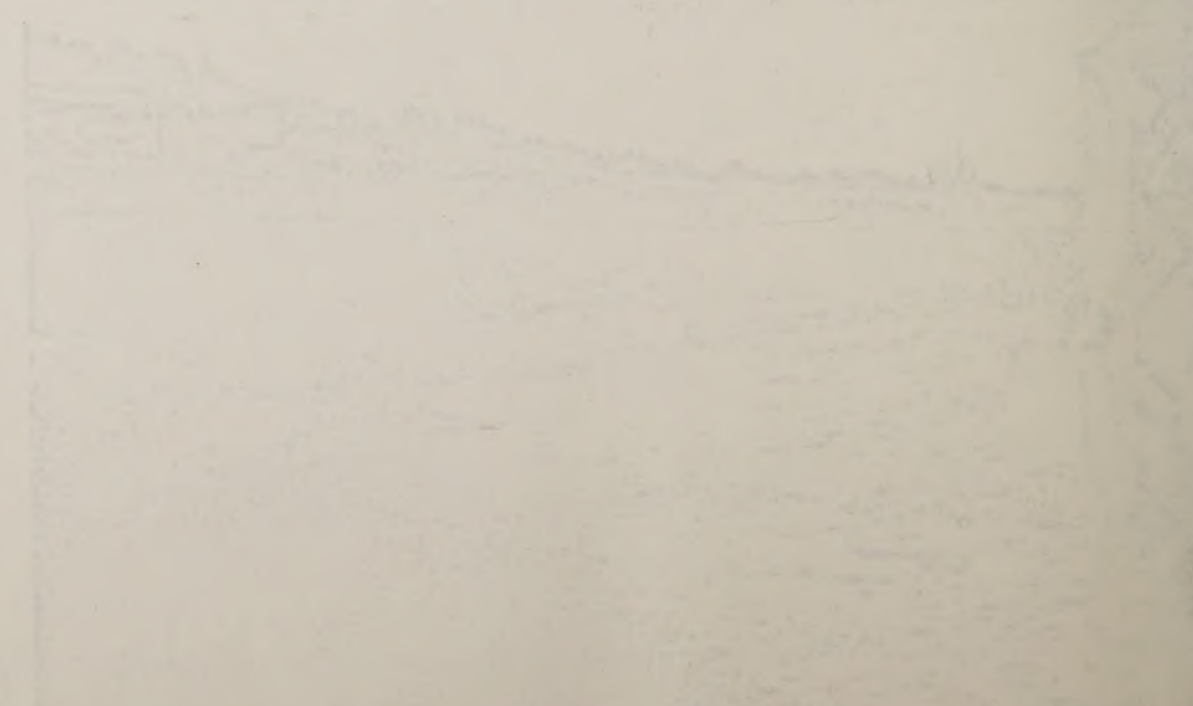




THESE ARE THE RESULTS OF THE
RESEARCHES OF THE
COMMISSIONERS OF THE
LAND OFFICE
AND THE
REVENUE DEPARTMENT
OF THE
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Being, going
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Where's the 'white water'? . . .

DESPITE VIVID DREAMS of the Sierra Club and other conservationist groups who claim the Dolores River Project will stop the "white water" boating aspects, the river it-

self never cooperates, as this aerial view of the river at the McPhee damsite below Dolores testifies. All that can be seen are long stretches of sand and gravel with here and there a small pond in the river bed. Only about 30 days of the year - in the spring runoff time - does the river run enough water to permit boating. Photo by Rus Brown.

Q

C

Where's the White Water?

It is a common mistake to think of the White Water as a single, continuous body of water. In fact, it is a collection of many small, separate bodies of water, each of which is a part of the White Water. The White Water is a collection of many small, separate bodies of water, each of which is a part of the White Water. The White Water is a collection of many small, separate bodies of water, each of which is a part of the White Water.

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THE DOLORES RIVER

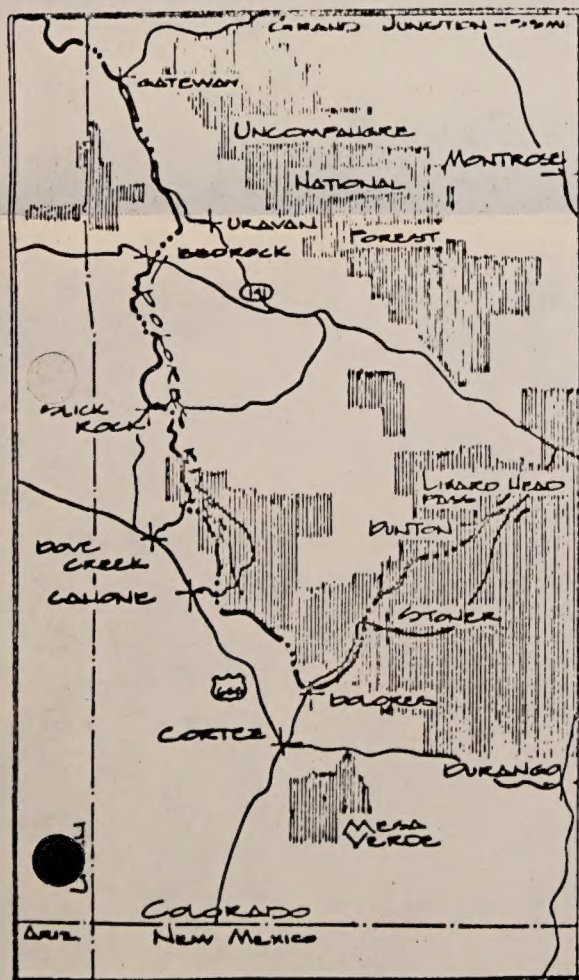
The fountainhead is in Colorado's San Juan Mountains, and most of its basin is in the canyonlands. It parallels the Lizard Head Pass Road to the town of Dolores, and then turns to flow N.N.W. for 187 miles to the Colorado River.

Below the town of Dolores, it enters a gorge which is in many places 2300 feet deep, and covered with large Ponderosa Pines. Many wooded glades with lush green grass by fast moving white water make excellent campsites and exceptional scenery.

Below Dove Creek the canyon becomes more desert like in appearance. The walls begin to change to red sandstone, and vegetation changes to Pinon Pine.

The rugged beauty of the section between Slickrock and Bedrock is strikingly reminiscent of the forever-lost Glen Canyon of the Colorado River. The river leaves the canyon briefly to cross Gypsum Valley, where magnificent vistas of the white capped La Sal Mountains contrast the desert scene.

The river carves a tortuous course through the canyonlands beyond. There are impressive walls, "goosenecks", interesting side canyons, primitive cliff dwellings, and pictographs. Deer, wild burros and numerous small animals complete the wilderness scene. In no canyon of the Colorado River System is there less evidence of the hand or presence of man.

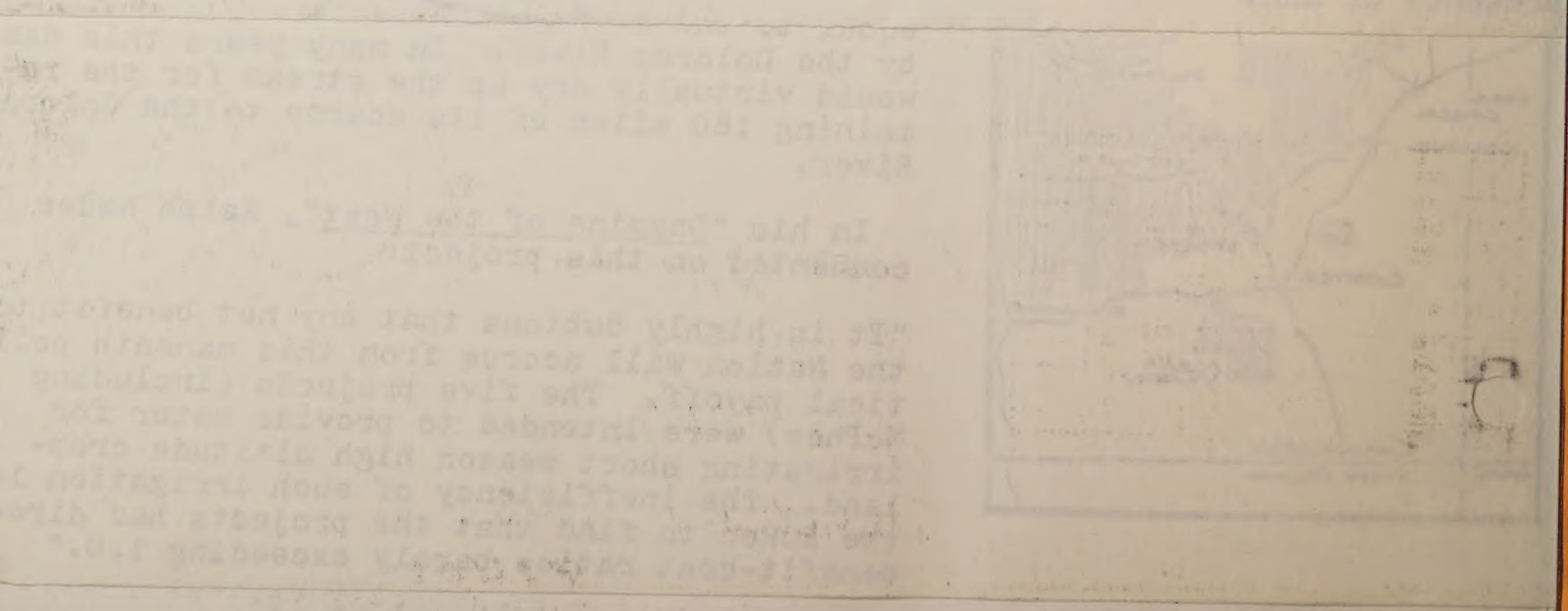
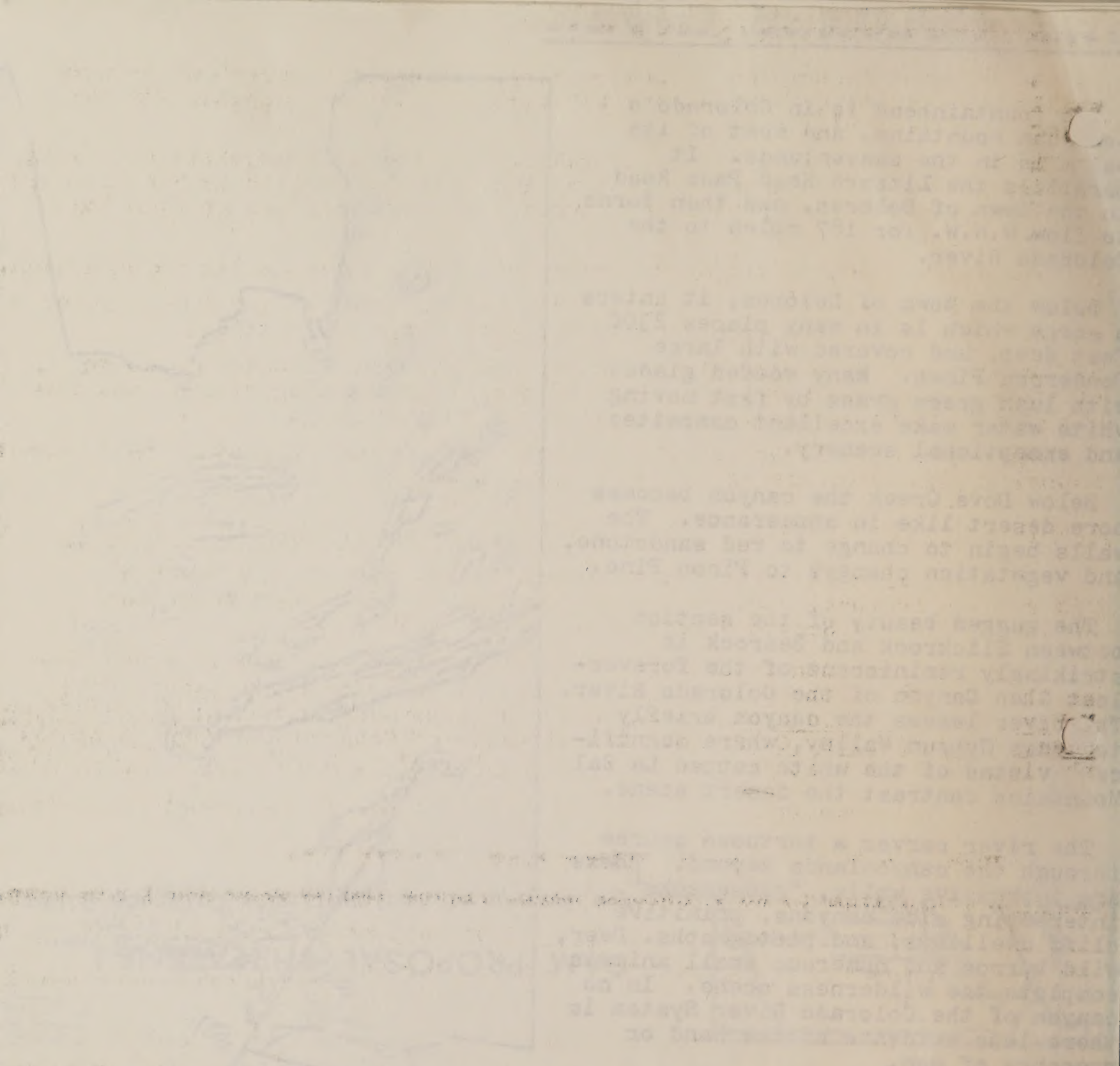


DAM PROPOSAL THREATENS !

The Bureau of Reclamation's Colorado River Basin Plan calls for damming the Dolores at multiple levels. Of most concern at the present time is the McPhee Dam Proposal, which is now in advanced planning stages. The site is eleven miles below the town of Dolores. The dam is designated for storage for summer irrigation. The capacity of the reservoir is about equal to the average annual discharge of water by the Dolores River. In many years this dam would virtually dry up the stream for the remaining 180 miles of its course to the Colorado River.

In his "Damming of the West", Ralph Nader commented on this project:

"It is highly dubious that any net benefit to the Nation will accrue from this mammoth political payoff. The five projects (including McPhee) were intended to provide water for irrigating short season high altitude cropland. The inefficiency of such irrigation led the BuRec to find that the projects had direct benefit-cost ratios barely exceeding 1.0."



CONSERVATIONISTS SAY:

1. The proposed McPhee Dam is unnecessary. It would benefit only a very small number of large landowners, politicians, and bureaucrats; NOT the majority of Americans.
2. The dam is economically unjustifiable. The Bureau's benefit-cost ratio is misleading. It is based on 1962 prices, and the ability to borrow money at 3% interest! Using realistic figures, the costs are far greater than the benefits.
3. Over \$47 million of taxpayers' money would be wasted on its construction.
4. A project so marginal is hardly worth destroying a unique desert river canyon which meets the requirements for wild river designation.
5. The resource as a recreational river has not been afforded economic consideration, when greater numbers of people are running rivers, and the number of rivers available to run is rapidly decreasing.
6. The project should be totally re-analyzed. We must demand an environmental impact statement before any further planning.

HELP PROTECT THE DOLORES under the WILD RIVER BILL

The 115-mile stretch of the Dolores River, between the towns of Dolores and Bedrock, meets the requirements for protection under the National Wild and Scenic Rivers Act. (P.L. 90-542)

Your Congressmen and Government Officials need to know that you care so they can take appropriate action. Constituents of Frank Evans, Mike McKevitt, and Donald Brotzman may address these Congressmen at House Office Bldg, Washington, D. C. 20515. Constituents of Congressman Wayne Aspinall should address him at Rayburn House Bldg, Rm. 2201, Washington, D. C. 20515.

PARTICULARLY IMPORTANT are letters to Evans & Aspinall from their constituents!

It would be extremely helpful to send copies of your letters to:

Mr. Dale Andrus, State Director	Mr. D. L. Crandall
Bureau of Land Management	Regional Director
Rm. 700, Colorado State Bank Bldg.	Bureau of Reclamation
1600 Broadway	P. O. Box 11568
Denver, Colorado 80202	Salt Lake City, Utah 84111

We have asked alot, but if you really care about the Dolores, a letter to Governor Love would have a great impact too!

If you are willing to help further in an effort to gain protection, please check appropriate spaces below; tear on dotted line, and mail bottom of page (including your name and address) to Dolores Wild River Committee, 2007 Mariposa, Boulder, Colo. 80302, or P.O. Box 853, Durango, Colo. 81301.

_____ Please keep me on your mailing list. I will help.

_____ I would like to do volunteer work. Please let me know how I can help.

_____ Enclosed is my donation of \$_____ to help cover costs of printing, etc.

My name and address are below. My phone number is_____.

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		Montrose				San Juan	
		San Miguel				Deadline	

Brent Jensen

BLM

Box 1269

Montrose, Colo.

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